THEIR WAY OF WRITING

Scripts, Signs, and Pictographies in Pre-Columbian America

ELIZABETH HILL BOONE *and* GARY URTON, *editors*

Biblioteca "Rafael García Granados"
FH 60960
INSTITUTO DE INVESTIGACIONES HISTÓRICAS

DUMBARTON OAKS PRE-COLUMBIAN SYMPOSIA AND COLLOQUIA

DUMBARTON OAKS PRE-COLUMBIAN SYMPOSIA AND COLLOQUIA

Series Editor
Joanne Pillsbury

Editorial Board
Elizabeth Hill Boone
Tom Cummins
Gary Urton
David Webster

THEIR WAY OF WRITING

Scripts, Signs, and Pictographies in Pre-Columbian America

ELIZABETH HILL BOONE AND GARY URTON
Editors

DUMBARTON OAKS RESEARCH LIBRARY AND COLLECTION
WASHINGTON, D.C.

CLASIF F1435.3.W75T74
ADQUIS FH 60560
FECH : 7-Nov.-2011
PROCED. Canje: Dumbarton Oaks.
$
S.-1491683

© 2011 Dumbarton Oaks
Trustees for Harvard University, Washington, D.C.
All rights reserved.
Printed in the United States of America

15 14 13 12 11 1 2 3 4 5

Library of Congress Cataloging-in-Publication Data

Their way of writing : scripts, signs, and pictographies in Pre-Columbian America / Elizabeth Hill Boone and Gary Urton, editors.

p. cm.—(Dumbarton Oaks Pre-Columbian symposia and colloquia)

Includes bibliographical references and index.

ISBN 978-0-88402-368-5 (hardcover : alk. paper)

1. Indians of Mexico—Languages—Writing. 2. Indians of Central America—Languages—Writing.
3. Indians of South America—Peru—Languages—Writing. 4. Picture writing—Mexico.
5. Picture writing—Central America. 6. Picture writing—Peru.
7. Mayan languages—Writing. 8. Nahuatl language—Writing.
9. Quechua language—Writing.
I. Boone, Elizabeth Hill. II. Urton, Gary. III. Dumbarton Oaks.

F1435.3.W75T74 2011

497—dc22

010050788

General Editor: Joanne Pillsbury

Art Director: Kathleen Sparkes

Text Design and Composition: Melissa Tandysh

Jacket Design: Kathleen Sparkes

Managing Editor: Sara Taylor

Volume based on papers presented at the Pre-Columbian Studies symposium "Scripts, Signs, and Notational Systems in Pre-Columbian America," organized with Elizabeth Hill Boone and Gary Urton and held at Dumbarton Oaks Research Library and Collection, Washington, D.C., on October 11–12, 2008.

Cover illustrations: Inka *khipukamayuq*, drawing 137 of Felipe Guaman Poma de Ayala, *Nueva corónica y buen gobierno*, 1615, photograph courtesy of The Royal Library, Copenhagen. Mixtec scribe, detail, folio 48v of the Codex Vindobonensis Mexicanus.

www.doaks.org/publications

BIBLIOTECA
RAFAEL GARCIA GRANADOS
INSTITUTO DE
INVESTIGACIONES HISTORICAS

These books were written in symbols and pictures. This is their way of writing, supplying their lack of an alphabet by the use of symbols.

—FRIAR MOTOLINIA, 1541,
History of the Indians of New Spain

Before the Spaniards came the Indians of Peru had no knowledge of writing at all . . . , but this did not prevent them from preserving the memory of ancient times, nor did they fail to keep a reckoning for all their affairs whether of peace, war, or government. . . . [T]hey compensated in part for the lack of writing and letters . . . principally, with *quipus*. . . . What they achieved in this way is incredible, for whatever books can tell of histories and laws and ceremonies and accounts of business all is supplied by the *quipus* so accurately that the result is astonishing.

—JOSÉ DE ACOSTA, 1590,
Natural and Moral History of the Indies

FH 60960

CONTENTS

FOREWORD | ix
Joanne Pillsbury

1 INTRODUCTION
Their Way of Writing: Scripts, Signs, and Pictographies in Pre-Columbian America | 1
Gary Urton

2 The Cold War and the Maya Decipherment | 9
Michael D. Coe

3 All Things Must Change: Maya Writing over Time and Space | 21
Stephen D. Houston

4 The Flowering Glyphs: Animation in Cotzumalhuapa Writing | 43
Oswaldo Chinchilla Mazariegos

5 Teotihuacan and the Development of Writing in Early Classic Central Mexico | 77
Karl Taube

6 The Written Surface as a Cultural Code: A Comparative Perspective of Scribal Traditions from Southwestern Mesoamerica | 111
Javier Urcid

7 Elaboration and Abbreviation in Mexican Pictorial Manuscripts: Their Use in Literary Themes | 149
Michel R. Oudijk

8 Writing, Images, and Time-Space in Aztec Monuments and Books | 175
Federico Navarrete

9 Ruptures and Unions: Graphic Complexity and Hybridity in Sixteenth-Century Mexico | 197
Elizabeth Hill Boone

10 Moche as Visual Notation: Semasiographic Elements in Moche Ceramic Imagery | 227
Margaret A. Jackson

11 Chuquibamba Textiles and Their Interacting Systems of Notation: The Case of Multiple Exact Calendars | 251
R. Tom Zuidema

12 *Tocapu*: What Is It, What Does It Do, and Why Is It Not a Knot? | 277
Thomas B. F. Cummins

13 *Khipu* Typologies | 319
Gary Urton and Carrie J. Brezine

14 *Khipu* from Colony to Republic: The Rapaz Patrimony | 353
Frank Salomon, Carrie J. Brezine, Reymundo Chapa, and Víctor Falcón Huayta

15 The Cultural Category of Scripts, Signs, and Pictographies | 379
Elizabeth Hill Boone

CONTRIBUTORS | 391

INDEX | 397

12

Tocapu

What Is It, What Does It Do, and Why Is It Not a Knot?

THOMAS B. F. CUMMINS

THE INKA SYSTEMS OF RECORDING AND representation are, by and large, opaque to us, especially in contrast to those of their geographic cousins in Mesoamerica.[1] As of now, we can extract little information from the major forms and objects of Inkaic creation and use, especially from those that are understood to be the main visual and physical bearers of knowledge: the *tocapu* and the *khipu*. For the khipu, the most intensively studied Inka form and object, we can only describe, after almost a hundred years of modern investigation, how information could have possibly been encoded through a recursive set of decimal positional notations and binary relations (Ascher and Ascher 1981; Locke 1923; Urton 2003, this volume).[2] We cannot decode that system for the information that any extant khipu is imagined to contain.[3] That is, discrete examples of the khipu are presumed to contain specific information, be it statistical, historical, or religious, but no specifics can be had: no list of kings, no *res gestae*, no dates of creation, birth, or death (Urton and Brezine 2007:377). Even when some examples of khipus seem, through the summation of their numbers, to calibrate to the days of a lunar calendar (Urton 2001, 2007:36–41), we cannot say what the reference means other than there is similitude between the numerics of the year and of the khipu. If this is true for our understanding of the khipu, then what we know about the tocapu is very much less.[4] There has not been any sustained or systematic study of the tocapu in terms of what it is and how it operated, first in the Pre-Columbian and then in the colonial period.[5] There is, therefore, no historical dimension to any study of the tocapu, so that the tocapu is investigated as an undifferentiated entity of only the vaguest definition (Barthel 1971; Clados 2007; Frame 2005, 2007; Gentile L. 2008; Jara 1967, 1970, 1972, 1975; Silverman 1999, 2007; Ziólkowski et al. 2008). In other words, the various studies of the tocapu since the 1960s have simply assumed an understanding of what the constitutional properties of the tocapu are and from there have proceeded toward formulating an interpretation.

One of the principal aims of this chapter is to suggest that tocapu studies have never been rooted in a rigorous analytic tradition based on historical precision, unlike khipu studies as inaugurated by Leland Locke, which involve a precise analytical description related to a sustained, rigorous, and critical reading of ethnohistoric texts. Rather, the tocapu most often has been seen as an element of textile studies and often has been associated with a "lost" system of Inka writing.[6] Scholars frequently cite the Quechua word *quilca*, a term that may have implied some form of graphic mark for the Inka, as proof that there once existed an Inka graphic system in which the tocapu participated. What *quilca* meant to the Inka is decidedly unclear; however, the word quickly came to be used in the colonial period to refer to most things associated with writing and pictorial drawing. As such, I believe that we need to disassociate the tocapu from *quilca*. Furthermore, Andean studies scholars must no longer look for and long for something that does not exist, that is, a lost system of Inka writing and image making of which the tocapu is often claimed to be the main component.[7] It is time to give up on the El Dorado of Inka letters once and for all, even though forty years ago it was thought to have already been found.[8]

First, the various colonial neologisms for the instruments of writing, the act of writing itself, scribes (*quilcamayoc*), and books (all based on the term *quilca*)[9] merely demonstrate how early and pervasive alphabetic writing was.[10] Second, we need to disassociate the tocapu from textiles. While the tocapu is at times intimately associated with the textile, the textile is not integral to the existence of the tocapu.[11] It is, therefore, absurd to pretend that when the modern investigator is able to have a present-day Andean informant identify (read) a textile motif as representing something iconographically specific, we might then be able to use this information as an unmediated avenue of tracking meaning back to Inka and pre-Inka motifs (Frame 2005; Silverman 2008). The ethnographic work done on contemporary textiles and weaving practices is very important in and of itself, of course, and it may shed some dim light on earlier practices, but like the studies of contemporary khipus and khipu use, such studies do not provide some kind of Rosetta stone. How images in the Andes are actually used and read in the twenty-first century has a colonial history, and attempts to extrapolate meaning from the present-day cognitive experience of weaving as image making is part and parcel of that history. Projecting contemporary information onto an interpretation of images from before 1532 does not take into account the nearly five hundred years of questions about meaning from Western extirpators, *huaqueros*, anthropologists, historians, art historians, textile aficionados, and tourists.[12] This almost half-a-millennium-long period of Western inquisitors searching for Westernized meanings in the objects that they had seen in the Andes most certainly has led those questioned (Andeans) to conform their answers to the questions asked by non-Andeans.[13] Perhaps even more importantly, we must take into account the intense Catholic teachings about images through which Andeans systematically learned how to regard what constitutes an image within Western phenomenological, epistemological, and ontological terms.[14] In fact, there was perhaps no greater intellectual effort by Europeans in the Americas than the promotion of Catholic religious practice and its attention to the proper viewing and understanding of images.

Even though the campaign to alter indigenous religious practice (and, by extension, idolatry) through doctrinal teaching was systematic throughout the Americas, the conditions of interpretation in the Andes are radically different than those in much of Mesoamerica, where teaching could occur nonverbally through symbols and glyphs.[15] The clearest example is Diego de Landa's *Relación de las cosas de Yucatán*, in which the logosyllabic Maya images were drawn on a page in relation to a Spanish explanatory text, thanks to which scholars could decipher Maya glyphs in the twentieth century. It should not be surprising that there is, as yet, no analogous manuscript that might offer modern scholars a correspondence between indigenous and European forms in the Andes.[16] Moreover, other systems operating in Mesoamerica combined both pictorial and

glyphic systems, which allowed for precise decipherment. Glosses appear in colonial manuscripts such as the Codex Mendoza, which begins on folio 1v with the number signs and name glyphs of the first thirteen years in an Aztec completion cycle of fifty-two years. They are depicted sequentially in a horizontal row proceeding from left to right. The names in Nahuatl are written in red ink in Roman alphabet above the glyphs, and the translations into Spanish are written in black below them.[17] In relation to Andean manuscripts, we should also take into account the fact that this type of glossing in the Codex Mendoza is not unusual, but rather the discussion and description of Mesoamerican glyphs and their relation to pictorial images is prevalent in novohispanic colonial manuscripts. In contrast, Andean texts that mention Inka images are all but absent, and there is only one manuscript in which an Andean-style image is glossed: Santa Cruz Pachacuti Yamqui Salcamaygua's *Relación de las antigüedades del Pirú* (ca. 1613).

If we look at Mesoamerican images at the time of the Spanish arrival, we can apprehend easily that there is a correspondence between the various representational systems of the Mexicans and Europeans. The phonetic glyph and the pictorial glyph of Mesoamerica existed within a continuum of expression such that their use extended into and even expanded in the colonial period and participated fully in religious, political, legal, and economic genres. Moreover, Pre-Columbian images and glyphs appeared in a variety of media in Mesoamerica; for example, the name glyph of Montezuma appears on sculpture, precious objects, and in manuscripts. Is this situation also true in the Andes?[18] Is there an overlapping set of relations between the various modes of expression in the Andes? More specifically, we should ask if the tocapu and the khipu participate in a common signifying system.

At a fundamental level, we can answer yes to all three questions, as orality is a constitutive element of visual representation in the Andes. The khipu, for example, is ultimately dependent upon oral communication. This relationship is not unique to the khipu. Orality forms the basis of the relationship between knowledge and memory in the Andes (Cummins 1998; Harrison 1989; Howard-Malverde 1990; Pärssinen and Kiviharju 2004:24). A proximity to certain things changes the way one speaks about knowing. We really do not understand the phenomenology of the khipu, how it produced speech and in what form, but the evidentiary relationship between khipu and testimony continued into the colonial period, and almost all recorded uses of the khipu are related to the transfer of oral data to a written document, be it as history or legal evidence. The khipu then took on a more metaphysical character and was used for reciting prayer or giving confession. Furthermore, the khipu itself is never depicted in any document to provide evidence of the transfer of the information it contains, but rather it is only described textually, and various transcriptions can be found in multiple colonial archives. This is very different from Mesoamerica, where the transcription and the thing transcribed coexist in the archive. The colonial images of the khipu only represent it as an Andean object of recording, but, so far as is known, no image of a khipu is capable of revealing the information it contains or how it actually worked. Two drawings from Felipe Guaman Poma de Ayala suffice to demonstrate this critical point. The first drawing depicts a *khipucamayoc* holding a khipu in both hands (Figure 12.1), one bound and the other extended (Guaman Poma 2001 [1615]:348 [350]). That is, two states of the khipu are represented: one of rest and one of use. But neither depicts a knot, which makes the form of inscription illegible, much as if we were looking at a closed book or holding a blank page. The second drawing depicts a colonial Andean scribe who is identified both in Spanish and Quechua as "escribano del cabildo" (town scribe?) and "quilcacamayoc," respectively (Guaman Poma 2001 [1615]:814 [828]). He has all the instruments of writing and is composing a document, but, unlike the figure holding a khipu that cannot be read, he is depicted while creating a will with the first part of the text visible: "En el nombre de la Santícima Trinidad hago el testamento de don Po . . ." (In the name of the Holy Trinity, I make the testament of don Po . . .)[19]

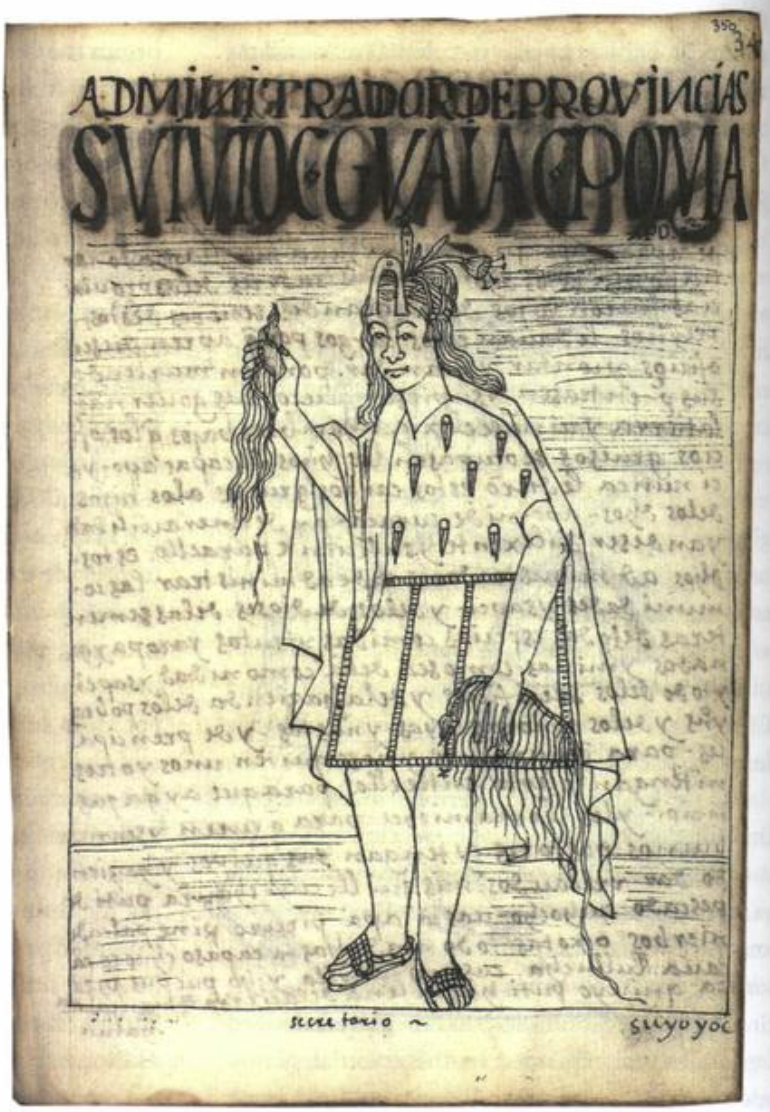


figure 12.1
Admini[s]trador de provincias, ink on paper, from Felipe Guaman Poma de Ayala, *Nueva corónica y buen gobierno*, 1615. (Reprinted from Guaman Poma 2001 [1615]:348 [350]; photograph courtesy of The Royal Library, Copenhagen.)

Guaman Poma also depicts tocapus as part of Inka dress in many of his illustrations (see Figure 12.17); the form of these elements seems to vacillate between the abstract designs of discrete geometric shapes and European letters and numbers. His illustrations of tocapus seem to represent the tocapu itself (both as an image and as a concept) in a manner unlike his drawings of the khipu, which must be displayed as an object without any means of understanding its expressive and interpretive values. No modern scholar has attempted to interpret what Guaman Poma's khipus mean in the way that countless scholars have done for his tocapus.

We cannot say if Guaman Poma intentionally tried to articulate visually the relationship between these two Inka forms, but his drawings do pose the question: what is the tocapu in relation to what we know about the khipu? First, as I have already discussed, scholars assume they recognize what a khipu is when they see it because it is described for us in various chronicles. The khipu is generally understood as capable of encoding specific Inka information, be it statistical, historical, or religious, and it continued to be used well into the colonial period as a mechanism for recording evidence for legal disputes, reciting sins for confession, and so forth.[20] The khipu is, therefore, believed to

be a versatile instrument of symbolic technology of a rather well-defined character. Many scholars also believe that we can garner knowledge of what a tocapu is based on how it is described by chroniclers. For example, Martín de Murúa writes,

> El vestido que ordinariamente usaba era una camiseta de cumbi labrada, la cual era obra de las ñustas, que lo hilaban sutilísimamente para tejer los vestidos del Ynga, y esculpían en ellas maravillosas labores de tocapo, que ellos dicen que significa diversidad de labores, con mil matices de sutil manera, al modo de los almaisales moriscos, de primor excelente, y unas veces de color morado, otras verde, otras azul, otras carmesí finísimo (Murúa 1616: 226v).
>
> [The dress that was normally used was a shirt fashioned from *cumbi labrada* [?], which was made by the Inka princesses, who spun it in the most fine manner, to weave the garments of the Inka, and they sculpted in it marvelous works of tocapu, which they say means a variety of brocades [*labores* (?)], with a thousand hues of a subtle fashion, in the style of Islamic *almaisales*, of an excellent delicacy and sometimes purple, or blue, or green or a most fine crimson.][21]

This passage contains a rather precise description of an *uncu* (tunic) with tocapu, and seems to describe an uncu from Dumbarton Oaks (Figure 12.2). These "maravillosas labores de tocapo" could also be described as signs (*señales*) (see also Cummins 2007); however, there are certain particular conditions and arguments that must be acknowledged about the tocapu as a sign before we can begin to think about how it signifies. This context is very different than that of the khipu, which we know operates on a decimal system, in which the placement of the knot along the dependant cords assigns it a decimal value. That is, the value of the knot is in part based upon its spatial relationship within a specific material context. We have no sources or studies that might provide any such fundamental understanding of the operating system for the tocapu or of how and to what the tocapu makes reference.

A second issue that is important to point out in terms of the relationship between the khipu and tocapu is that colonial sources are unanimous in stating that writing did not exist in the Andes and that it was the khipu that provided the Inkas' historical, religious, and statistical information for the Spanish chroniclers. Pedro Sarmiento de Gamboa (1988 [1572]:57) writes that "before entering into the full history of the Inkas, I would like to . . . address an issue that may arise among those who have not been in these lands. Some may say that this history . . . cannot be true because without writing these natives could not memorize so many details . . . [but] these natives had a curious method that was very good . . . that they call it khipu."[22] Martín de Murúa (1590:77r), copying from Jerónimo Roman y Zamora, is even more precise in saying that "the khipu was a great invention for what they wanted to remember, but not by paintings, nor glyphs as were used in New Spain, but by a different more opaque and dignified way of knowing, which as I said was by knots tied into somewhat thick cords similar to our rosary or the knots on the cord of the Franciscans."[23] Guaman Poma, Garcilaso de la Vega, and many others make similar statements.

What is critical to stress here is that not only is the tocapu never mentioned in relation to the khipu, but that the tocapu is never even mentioned in relation to the Inkas' lack of writing in comparison to Mexico. It is the khipu that is always brought forth as the Andean counterpart to European writing. Guaman Poma makes this association between writing and the khipu clear in his first and last depictions of the khipu, where either a book or the Spanish word *carta* are shown together with the khipu (Figure 12.3). There are no such associations made with the tocapu even though the tocapu is prominently depicted in both Guaman Poma's and Murúa's manuscripts. This fact is important for several reasons, some of which I will explore further.

I would like to emphasize again the unanimity of the chroniclers (both Spanish and Andean) who unequivocally state that there was no writing, as defined by sixteenth-century European standards, in Tawantinsuyu and that the khipu

figure 12.2
Inka uncu with tocapu designs, ca. 1450–1540. Pre-Columbian Collection, PC.B.518, Dumbarton Oaks Research Library and Collection, Washington, D.C.

figure 12.3
Qv[i]nto calle, Saipaiac, ink on paper, from Felipe Guaman Poma de Ayala, *Nueva corónica y buen gobierno*, 1615. (Reprinted from Guaman Poma 2001 [1615]:202 [204]; photograph courtesy of The Royal Library, Copenhagen.)

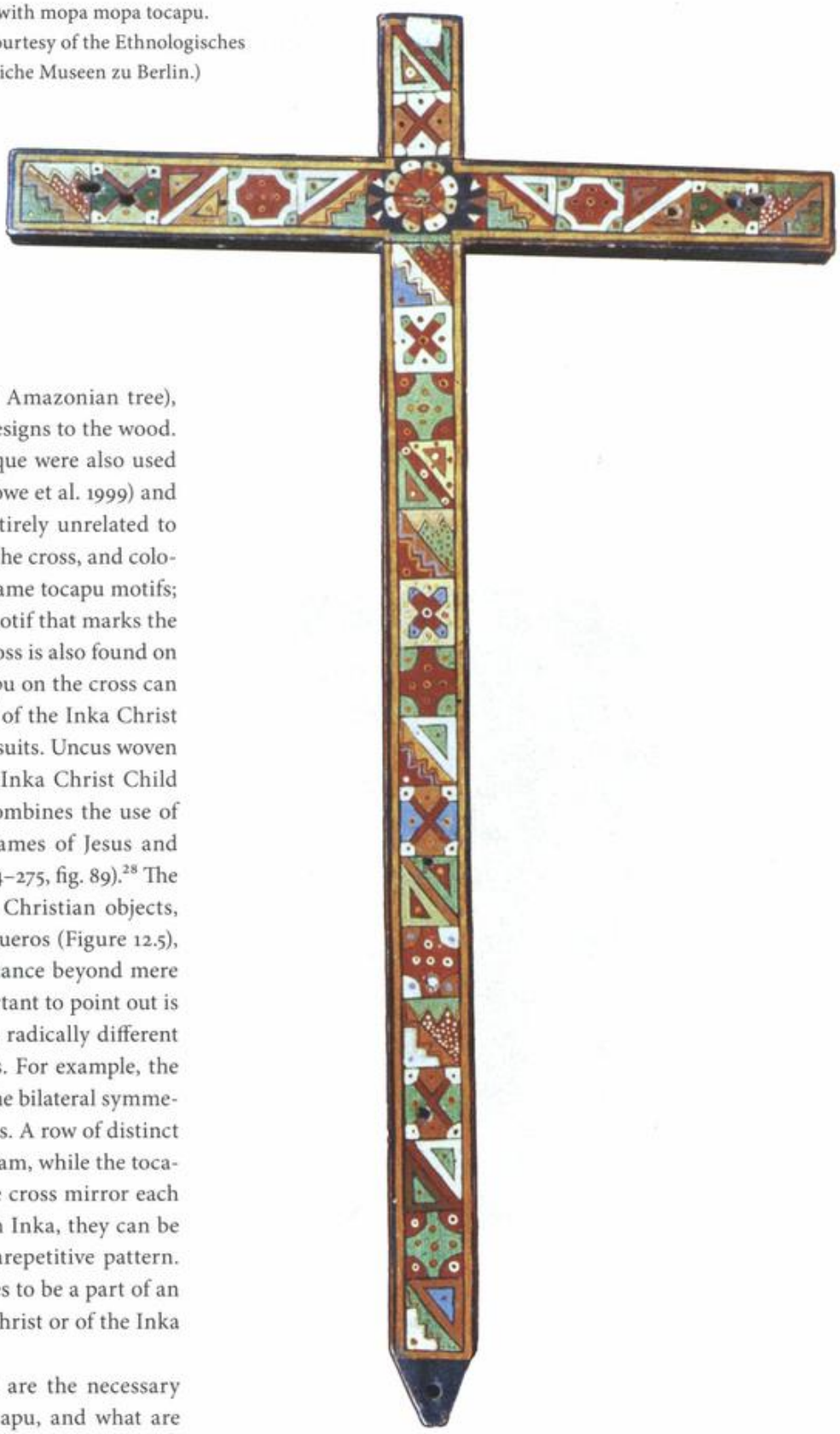
was the nearest equivalent. The tocapu is never described as something equivalent to writing, as I have discussed, although many recent publications in Europe and Latin America insist that the tocapu represents a lost writing system that simply awaits interpretation, similar to and in relation to the khipu. One thinks immediately of the work of Victoria de la Jara, beginning with her 1967 article "Vers le déchiffrement des écritures anciennes du Pérou." Jara compiled a set of what she decided were tocapu designs taken from a variety of sources, primarily colonial *queros*. Full words, such as *Inti* and *Inka*, were assigned to specific designs with an immutable relationship between word and tocapu. In this way, Jara (1972:74) claimed that she could decipher specific tocapu arrangements as representing full texts, such as "Madre Fertil Apu Inti Resplandeciente Luna Creador Apu Inti Radiante." This work seems to have inspired, if indirectly, the work of a number of scholars who have sought the specific meaning of individual tocapus (e.g., Frame 2005, 2007; Gentile L. 2008; Laurencich Minelli 1999; Silverman 1999, 2008; Ziółkowski et al. 2008).

Scholars have intended to interpret discrete tocapus as representations of sounds or words, but Jara does not use a rigorously systematic analysis that can be duplicated or give any credible evidence for her translations of image into word. This fact has not stopped some scholars from giving specific names to forms of tocapu, the first of whom was, I believe, John Rowe (1980), who coined the term *key design* to give a descriptive name to a rather common geometric motif. Although this term appears to have a rather neutral value, the act of giving names to things to which they have no relation has a powerful effect. For example Mary Frame (2005:243–248, 2007:22–24) calls a set of nested diamonds "Tawantinsuyu tocapu." Tawantinsuyu may indeed have been indicated by a tocapu (Cummins 2007), but such a design did not serve to illustrate only the concept of Tawantinsuyu. Unfortunately, Frame's iconographic identification of this form as being specific and particular has been used by subsequent scholars to describe Andean colonial painting and therefore has come to possess a semiotic value for symbolic description without being critically evaluated (Timberlake 2008:182–186). This problem has been exacerbated by the "discovery" of the Naples material and the uncritical claims that these documents substantiate the relationship between the khipu and tocapu—that is, that they represent words (Miccinelli 2001). The khipu with tocapu-like insertions was first discussed and illustrated in Raimondo di Sangro Sansevero's *Lettera apologetica* (1750). The new Naples documents purport to contain the original khipu upon which Sansevero based his illustrations and analysis and in which tocapu-like signs are embedded in the dependant cords. The conflation of tocapu, khipu, and alphabet was possibly a Jesuit invention. But as there are demonstrable false documents in the Naples collection,[24] it is difficult to have faith in any one of them.[25] Whatever the case, there was an eighteenth-century conflation of studies of the khipu and the tocapu within a single interpretive framework that focused on their reference to words and sounds, and unfortunately this error has persisted until today in various guises. We, therefore, need to understand first what the tocapus are and how they relate (or do not relate) to the khipu before we can think about issues of their referentiality, be it linguistic, numerical, or something else entirely.

In this context, a basic question is the following: does the tocapu represent a transhistorical system of notation that may be understood and interpreted according to some underlying structure or principle, like Maya glyphs and the Andean khipu? Or is it merely idiosyncratic and basically mnemonic and historically specific as suggested by George Kubler (1961), who believed that the tocapu's continued deployment in the colonial period was merely decorative, that it had lost any capacity to convey meaning. To begin to address this question, we can first look at two objects that are historically and culturally distinct: a wooden crucifix from eighteenth-century (?) Peru, now in Berlin (Figure 12.4), and the uncu at Dumbarton Oaks (see Figure 12.2). The uncu is perhaps the best known of any Inka object, but the cross has gone unnoticed and unpublished until now.[26] The tocapu's appearance on these two types of symbolically charged objects suggests that it could operate in radically different contexts, conveying different meanings in each. This possibility implies some deeper organizing principle than mere mnemonics or decoration. If we look at the tocapus on the cross, we can see that they seem to be arranged so as to map the places where Christ's body touched the cross, with the presumable location of Christ's head marked by a flower motif.[27] This suggestion is additionally supported by the fact that a now missing sculpture of a crucified Christ was later affixed to the cross. Two, possibly three, sets of drilled holes correlate to the positions where the hands and feet of the sculpture would have been attached. These holes pierce the cross rather crudely, suggesting that the cross was originally decorated only with tocapus. Furthermore, the way that the tocapus are laid out on the cross suggests that they may have actually served to represent the body of the crucified Christ.

The tocapus on the cross were "painted" using *mopa mopa*, also known as *barniz de pasto*

figure 12.4
Wooden cross with mopa mopa tocapu. (Photograph courtesy of the Ethnologisches Museum Staatliche Museen zu Berlin.)



(a gumlike substance from an Amazonian tree), as the material for fixing the designs to the wood. The same material and technique were also used to decorate colonial queros (Howe et al. 1999) and comprise an artisanal skill entirely unrelated to weaving. Nonetheless, queros, the cross, and colonial textiles all share some of same tocapu motifs; for example, the same flower motif that marks the place of Christ's head on the cross is also found on queros. Furthermore, the tocapu on the cross can be understood within the cult of the Inka Christ Child as promulgated by the Jesuits. Uncus woven for colonial sculptures of the Inka Christ Child have tocapus, and one even combines the use of the tocapu with the sacred names of Jesus and Mary (see Phipps et al. 2004:274–275, fig. 89).[28] The tocapu's appearance on these Christian objects, as well as on colonial-period queros (Figure 12.5), argues for the tocapu's importance beyond mere decoration. What is also important to point out is that the tocapu can be used in radically different cultural and religious contexts. For example, the tocapu can be used to lay out the bilateral symmetry of Christ's body on the cross. A row of distinct tocapus ascends the vertical beam, while the tocapus on each of the arms of the cross mirror each other. On the royal dress of an Inka, they can be laid out in a repetitive or nonrepetitive pattern. In both cases, the tocapu comes to be a part of an auspicious body, be it that of Christ or of the Inka (Cummins 2007:284).

We must ask, then, what are the necessary conditions that define the tocapu, and what are

its characteristic properties? Easy questions to ask, perhaps, but more difficult to answer. Tom Zuidema offers a definition that neatly summarizes what is a general set of commonly held properties of the tocapu: "Tocapu—square and mostly abstract signs used on Inka textiles and in other media—were part of complicated system of graphic communication but no one ever reported on it directly" (Zuidema 1991:151). Zuidema makes two noteworthy statements. First of all, he voices the assumption that the tocapu is a graphic *system*, although no chronicler has ever written anything to suggest this; second, and most importantly, he describes the form of the tocapu as being primarily abstract. *Geometric* abstraction is a more precise description, as most tocapu are composed of geometric figures—diamonds, squares, rectangles, and vertical, diagonal, and horizontal lines, all organized within a bordered square, rhomboid, or rectangle. The framing of each geometric composition allows the tocapu to be seen simultaneously as an individual entity and as an element in relation to other elements. In this sense, the visual characteristics of the tocapu would seem very different from those of the khipu; however, the modular nature of the tocapu is conceptually parallel to the organization of the khipu in the sense that each knot is both discrete and also meaningful in relation to the others. Rodolfo Cerrón Palomino (2008:99) agrees with Zuidema's description, saying that the word as registered by the Spaniards alludes to geometric figures or designs that adorn the royal dress of the Inka. His description of a tocapu, however, is of no real analytic interest, as he is not at all interested in what an actual tocapu, as a visual form, is. Rather, he is interested in the term itself, and he suggests that what it signifies in Quechua is very much diminished from its original meaning in Aymara.

figure 12.5
One of a pair of colonial queros with, on the upper register around the rim, two tocapus and a battle between the Inka and the jungle warriors, early to mid-eighteenth century. (Private collection; photograph by the author.)

While each tocapu can be easily distinguished as a separate unit even in the most complex field of multiple tocapus, such as on the Dumbarton Oaks uncu (see Figure 12.2), how one distinguishes between one tocapu composition and another is, at times, very difficult because many tocapus have identical compositional elements, with varying color schemes. In other words, the defining features of the tocapu have not yet been fully described, nor is whether there is a single syntax that orders them. If we were to believe that the black-and-white drawings of tocapus by Guaman Poma represent real tocapus, then color would not be necessary to decode them, as geometric forms would be their only defining elements. Guaman Poma's drawings are unique both in terms of color and form, and they might best be regarded as representations of the concept of tocapu rather than as actual tocapus. Color is surely a critical element of the tocapu, but we do not know how color variations should be understood. At the very least, we can say that each individual

geometrically abstract shape is articulated by a solid field of color. Furthermore, each distinct colored geometric composition is often visually intensified by the arrangement of the discrete tocapus in a grid design defined by either a square or rectangular frame. This pattern can be seen on the Dumbarton Oaks tunic or on the Berlin cross, where the defining vertical and horizontal elements of the cross create a geometric field by which the discrete tocapus are ordered (see Figures 12.2 and 12.4).

As I have already mentioned, the intimate but not exclusive relationship of tocapu to textile is irrefutable.[29] Almost all mentions of the tocapu in early colonial sources link it to textile work or describe it as being painted on other objects, including wooden ones. For example, the Quechua-Spanish dictionary of 1586 defines "tocapo" as "labor en lo que se brosla o texe o en vasos, tablas & etc." (work that one brocades, weaves, or on vessels, panels & etc.) (Anonymous 1951 [1586]:84). Not only does the anonymous author mention textiles first, but the categorization of the tocapu as "labor" associates it directly with textiles. Sebastián de Covarrubias Orozco takes pains to make the reader of his 1611 dictionary understand the specific properties that the word has in Spanish. He writes,

> Este vocabulo en la lengua castellana tiene diferente significacíon que *labor* en Latin, el qual signfica trabajo, fatiga, dificultad, etc., pero labor, en castellano, es lo mismo que *opus* y labrar, obrar alguna cosa; y porque este no se haze sin trabajo se dixo labor. Hazer labor y labrar, ir alabandera, se dize de la ocupación de las mujeres en telas, y las labores que hazen en ellas con la aguja (Covarrubias 1998 [1611]:746).
>
> [This word has a different meaning in the Castilian language than the word *labor* in Latin, which means work, fatigue or difficulty, etc; but in Castilian, it is the same as *opus*, to fashion or shape a certain object; and because this cannot be done without work, it became known as *labor*. *To make labor* and *labrar, ir alabandera*, refers to the work of women in textiles, and the needlework that they do in them.]

González Holguín (1952:344) defines the tocapu as "los vestidos de lauores preciosos, o paños de lauor texidos" (garments of a beautiful workmanship, or skillfully woven cloths). In Aymara, the term *tocapu* is slightly different than in Quechua, as it is an adjective that can, but need not only, apply to textiles. Ludovico Bertonio's (1879 [1612]:357) early seventeenth-century Aymara dictionary has several entries under *tocapu*, one of which is "tocapu isi," translated as "vestido, o ropa del Inga hecha a las mil marauillas, y assi llaman agora al Terciopelo, Telas, y Brocados &c quando quieren alabarlos" (garment, or clothing of the Inka made of a thousand marvels, and this is what they now call velvet, cloth or brocade when they want to praise them). *Isi* is the Aymara term for "vestido y cualquiera tela," so that *tocapu* refers to "ropa del Inga hecha a las mil marauillas" (Inkan cloth made of a thousand marvels). The terms used by Bertonio are very similar to those used by Martín de Murúa (1616:226v), who wrote at almost the same time as Bertonio and, as noted above, stated that the *ñustas* wove "los vestidos del Ynga, y esculpían en ellas maravillosas labores de tocapo, que ellos dicen que significa diversidad de labores."

Bertonio (1879 [1612]:357) also gives two other terms that expand our understanding of the tocapu. He defines "tocapu quellcata" as "cosa bien pintada, y asi de otras cosas" and writes "quellcatha es propiamente asseytar, Pintar o rascuñar o dibuxar al modo de indios que pintan los cantaros, y otros vasos" (quellcatha is properly to decorate,[30] to paint or to scratch or to draw in the manner of the Indians who paint jars and other vessels). The second definition he provides is "escriuir como hazen los Españoles" (to write in the manner of the Spaniards). The first meaning probably refers to image making in general but also to the images engraved and painted on queros. The second meaning for *quilca* in both Quechua and Aymara is often used as a neologism for writing and the book, as I have discussed, and thus refers, I believe, to a well-executed and complex image. There is, however, another entry that has nothing to do with images or objects. The first entry for *tocapu* in Bertonio (1879 [1612]:357) allows for an even more ample set

of meanings: "tocapu amaotta," which he translates as "hombre de gran entendimiento" (a man of great intellect) and which has the same meaning as the second entry, "tocapu chuymani." Bertonio (1879 [1612]:357) defines *amaotta* as "muy sabio, prudente" (very intelligent, prudent) and *chuymani* as "uno que tiene discrecion" (one who acts or speaks with good sense). Here *tocapu* seems to be used as a modifier that intensifies the defining quality of Aymara intelligence.

Cerrón Palomino (2008:108–109) traces the etymology of the term *tocapu* to Aymara with the root *tupa* meaning "silo" or "to make a silo." As the term moves into Quechua, it first signifies the power and wealth of Inka kings and then comes to convey the concept of elegance and distinction that finally is expressed in the material form of a textile. That is, the word has a double trajectory and transforms from meaning something abstract to meaning something concrete and vice versa. In Aymara, it moves from the concrete "storage" to "distinguished provider" to "magnanimous." And as it passes into Quechua, it goes from "magnanimous" to "elegant dress" to referring to a weaving motif.

These Aymara phrases that make use of the term *tocapu* take its meaning beyond mere visual design and endow it with a subjective quality of knowledge and intelligence as well as plentitude. This attribute is implied by Sarmiento de Gamboa (1988 [1572]:84) in his rather prosaic account of the Inka kings, in which he wrote about the Inka king Viracocha: "este inga [Viracocha] fué industrioso y inventor de ropas y labores polidas, a que llaman en su lengua Uiracochatocapo, ques como entre nosotros el brocado" (this Inka was very skillful,[31] and the creator of fine clothes and designs that they call in their language Viracochatocapu, that among us is like brocade). Guaman Poma's image of this Inka king is the first portrait in which the figure wears an uncu composed fully of tocapus, similar to the Dumbarton Oaks uncu (see Figure 12.2), and thereby seems to confirm Sarmiento de Gamboa's description.[32] Whereas Viracochatocapu is related to the mythohistorical figure of an Inka king in Sarmiento de Gamboa's work, the name takes on a divine quality as related by Cristóbal de Molina el Cuzqueño in his *Relación de las fábulas y ritos de los incas* (ca. 1575). He writes that the creator of the world had two sons, one of whom was called "tocapo Viracocha . . . quiere decir en su lengua haçedor en que se yncluyen todas las cossas" (. . . which means in their language "creator," which includes all things) (Molina el Cuzqueño 2008 [1576]:141–143). Molina also includes two prayers to the god Viracocha, in which he refers to the tocapu as an attribute of the god. The first prayer is to Viracocha as the one who puts life into things (Kamaq) and sets all things in order and creates man and woman, while the second prayer implores Viracocha for the increase of mankind. The tocapu, then, is not merely a royal attribute but becomes endowed with concepts of precise royal invention and divine creation. These qualities are distinct from those most generally associated with the khipu. The khipu is acknowledged over and again in the chronicles as being the instrument of record for the Inka, but it is not marked in the literature with attributes of royal creation and divine inspiration.

The intimate relationship between Viracocha and tocapu also gives a precise geographic association to the tocapu: Lake Titicaca and the ruins of Tiwanaku, both of which played a critical role in imperial origin myths of the Inka. It was here, the Inka claimed, that mankind was again created by Viracocha after the flood. The new peoples were then sent out by underground streams to emerge at the *pacarina*, or local place of origin (Sherbondy 1982). These were the progenitors of all the *ayllu* (communities) of the world, and at Tiwanaku they were first fashioned in stone and painted with their different ethnic dress. The monolithic sculptures of Tiwanaku clearly served as the visual and material basis for the Inkas' claims. Not only did the Inka believe that Viracocha had painted these figures with the local dress of the various parts of the empire, but they recognized specific objects held in the hands of the figures, which became divine objects important to the Inkas' own imperial investiture (Cummins 2002:60–61). Such a mythohistoric reading of the Tiwanaku sculptures might allow us to suggest that the Inka also

figure 12.6
Ponce Monolith, with a detail of its lower half with tocapu-like designs, Tiwanaku, Bolivia. (Photographs by the author.)

identified the designs on sculptures at Tiwanaku as tocapu (Figure 12.6). Monuments such as the Ponce Monolith and El Fraile are depicted wearing a kind of short pants on which there are diagonal rows of two different cartouche-like designs. One is a rectangle within a rectangle and the other seems to be a schematic face. Certainly, the design organization of many Wari and Tiwanaku uncus foreshadows the tocapu arrangements and forms on Inka uncus. Similarly, the gradual breakdown of figural parts into increasingly stylized, abstract geometric arrangements (Conklin 1996) also recalls the geometric abstraction of the many Inka tocapus. As I have discussed, Molina understood the tocapu as being related to Tiwanaku and creation narratives, which suggests that such images may have inspired the formulation of these Inka myths.

How does any of this information help us to understand the tocapu in relation to Inka notational systems? First, it clearly reinforces what seems to be the Inkas' ontological understanding of the tocapu. The tocapu is an image and not an object—most importantly, it is not necessarily a textile. This immediately separates the tocapu from the khipu. The two may or may not be related within the broader Andean system of referential practice, but they belong to entirely different categories of expression. Why? The khipu is not an element appearing in creation myths as a divine attribute. As far as I can tell, it is always mentioned at a more mundane level as an instrument of symbolic technology, like writing and books. The latter, of course, have a high symbolic and religious value in Christian belief and representation; the khipu probably had such a value as well, but it is

the tocapu, not the khipu, that one finds joined with the mystic names of Mary and Christ in the symbolic field of an uncu woven for a sculpture in colonial Peru (Figure 12.7). In a colonial Catholic context, the khipu was used as a recording device from which prayers were recited, sins were confessed, and the liturgical calendar was kept.[33]

Moreover, a khipu is at once an instrument of recording and the recording itself. The integrity of the khipu cannot be transferred, as far as I know, to other media. That is, the information it contains can be transferred to another medium, such as alphabetic text, but the khipu itself cannot be transferred to another medium without losing its signifying capacity. In other words, a drawing of a khipu is an illustration of the khipu as an instrument of recording (see Figure 12.1). This observation seems to be borne out by the important fact that in the three extensively illustrated manuscripts from the Andes, the khipu is depicted ten times. These illustrations are intended to represent the instrument from which information is transferred but not the mechanism of encoding or decoding the information itself. They are, therefore, images that are radically different from colonial Mexican manuscripts, in which indigenous and European systems can be easily conflated to express Nahua concepts. To phrase it in another way, in just three colonial Andean manuscripts we have more images that illustrate or demonstrate the use of the khipu than we have Mexican colonial images that depict the use of Mesoamerican screenfolds or colonial Mexican pictorial manuscripts in the hundreds of illustrated manuscripts and documents from New Spain. The Mesoamerican systems of notation do not require much, if any, explanatory representation in order to be legible as objects of record. Their form and substance is sufficient to convey their function, and hence they do not require any kind of descriptive illustration. Writing and instruments of writing among the Classic Maya are depicted, of course. But these images of the act of writing appear to endow this practice with supernatural properties as well as represent the authority it conveys to those who are masters of this symbolic technology. In the Andean colonial images, there is no notion of metaphysics attributed to the khipu or to those who wield it. This does not mean that Pre-Columbian khipucamayocs were not endowed with the mystery and power of their knowledge, but that this was simply never expressed visually.

The indissoluble integrity of object and information that characterizes the khipu does not pertain to the tocapu. The sixteenth- and early seventeenth-century definitions of *tocapu*, in relation to its visible characteristics, acknowledge the transmutable nature of the tocapu such that it can appear on wooden boards, ceramics, and textiles. The anonymous author of the 1586 dictionary ends his definition of *tocapu* with "etc."—indicating that the tocapu can appear as or on anything. In other words, the tocapu is a visual form that is independent of any particular class of object, and indeed, it is much more dynamic than the khipu in terms of context and can appear on architecture, ceramics, and other objects (Cummins 2007). For example, E. G. Squier (1877:242–244) illustrated a *chullpa* (an aboveground funerary structure) in Palca where the four exterior walls still exhibited a painted stuccoed surface (Figure 12.8). The design of each wall was the same, at least as rendered by Squire. The surface was divided into four quadrants by a central vertical and horizontal axis. Each quadrant was intersected by one of two diagonals such that each quarter was divided into two color fields of red and white. Teresa Gisbert and others (1996) described the chullpas of the Caranga culture of the Río Lauca region in Bolivia, which were also painted with Inka designs arranged in a horizontal band of diamond shapes that are tocapu-like. There are *urpus* (aryboloid vessels for serving *aqha* [corn beer]) that are slip painted so as to appear as if they are wearing an uncu with tocapu designs (Figure 12.9). Inka sacrificial rituals often combined textiles and metal objects with offerings of coca and corn beer at specific sites (*huacas*). The textiles and food recognized the anthropomorphized nature of the sacred stones, as analyzed by Maarten van de Guchte (1990).[34]

figure 12.7
Colonial uncu woven for a Christ Child sculpture, with tocapus and the sacred names of Mary and Jesus. (Private collection; photograph by the author.)

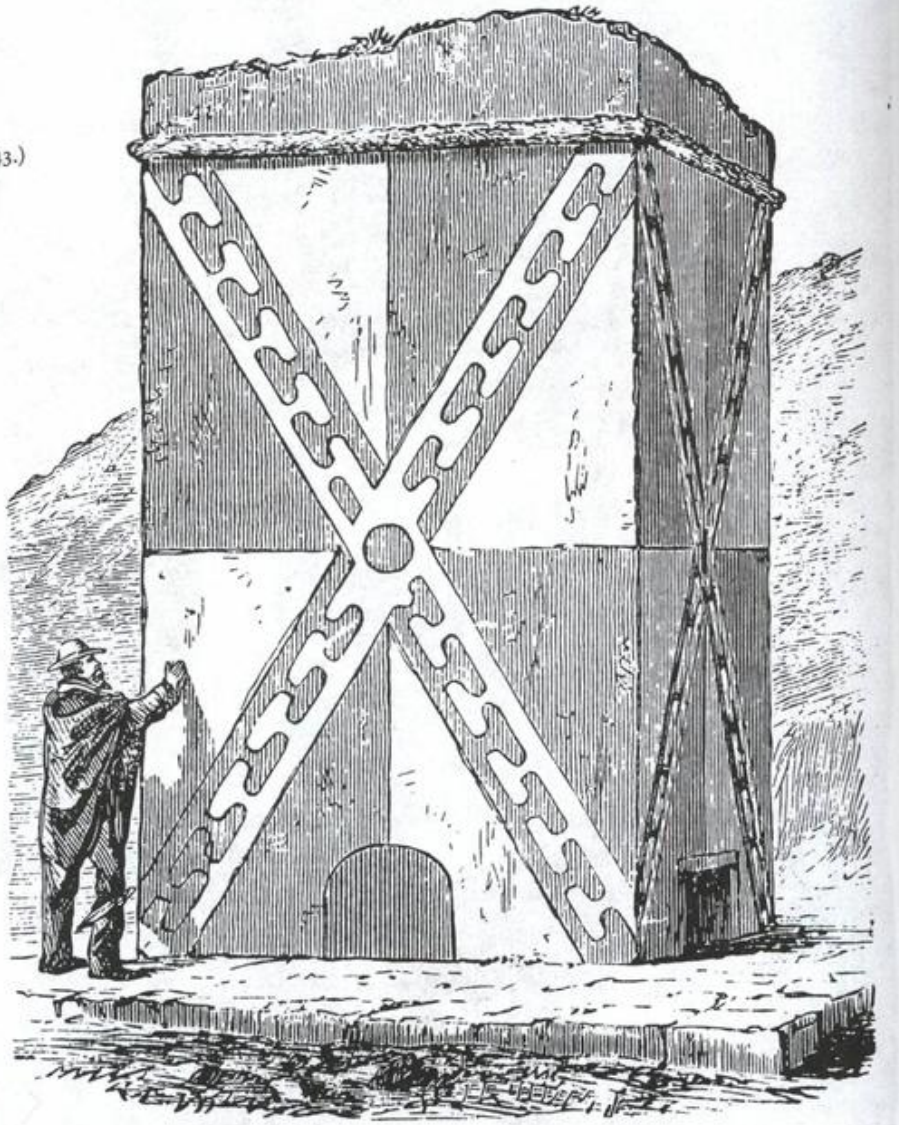


figure 12.8
Painted chullpa in Palca. (Reprinted from Squier 1877:243.)

The geometric designs of the tocapu are framed and arranged in grid patterns that can migrate from surface to surface and medium to medium. Moreover, the arrangement of the tocapu within a grid can be either idiosyncratic or conventional. There is, in fact, no consistent or single way of organizing tocapus on colonial queros, tunics, tapestry hangings, paintings, or drawings. They can be regularly repeated in pairs, as on certain types of queros (Cummins 1988), or they can be laid out in three or more horizontal rows in which they do not create a repetitive pattern horizontally but repeat in the diagonal rows. Some colonial religious tunics and Inka queros show a single discrete floating tocapu. The point is that unlike the khipu, which operates within a set of fixed rules of signification, tocapus are arranged, at least in the colonial period, in a bewildering array of compositional relations.

This set of conditions reintroduces the question of whether the tocapu is transhistorical in the way that the khipu seems to be or whether the tocapu is historically specific in the Pre-Columbian Andes,

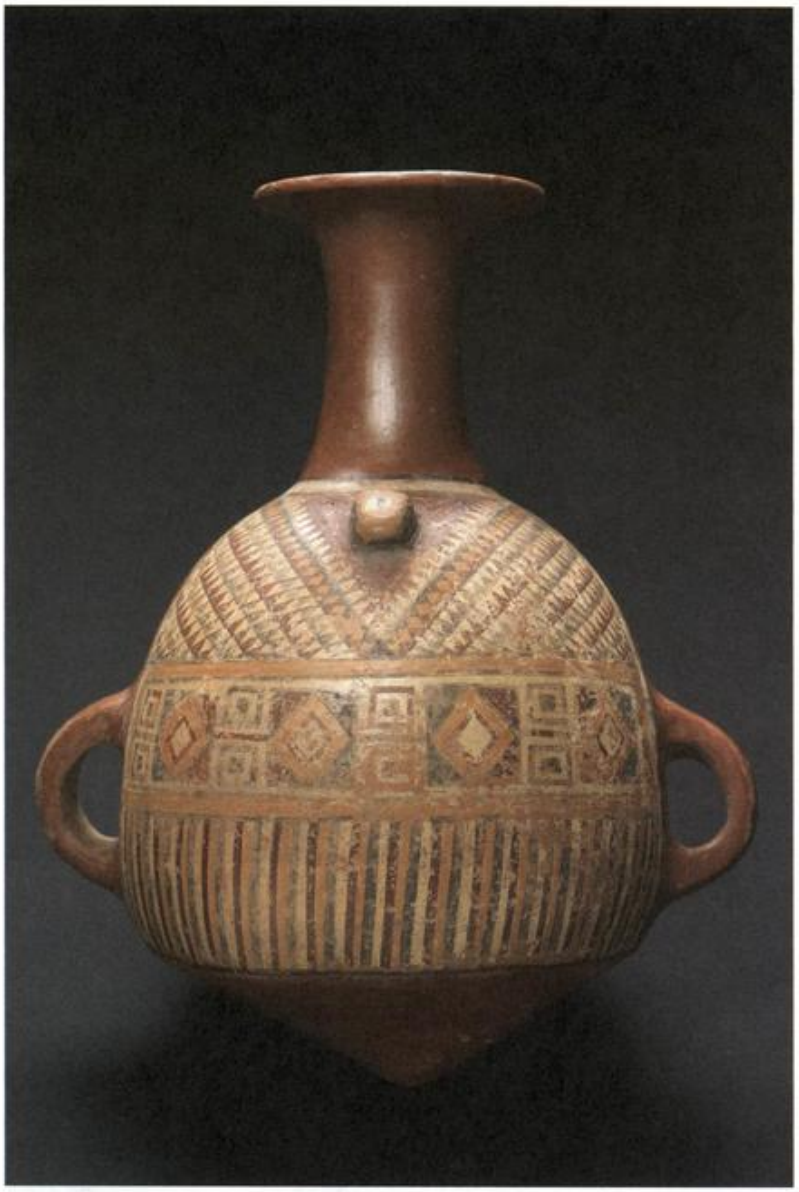


figure 12.9
Urpu with uncu design, Staatliche Museen zu Berlin, Preußisher Kulturbesitz, Ethnologisches Museum, VA7908. (Photograph by Claudia Obrocki.)

being a recent development of the Inka. In truth we do not really know. But the process of transferring grid patterns with their discrete designs has a long history, as already discussed with examples from Tiwanaku and Wari. If we look further afield at Moche murals, for example, we find a formal affinity between both figural and abstract Moche compositions and Inka and colonial Inka tocapus. The most recently uncovered mural at the Huaca de la Luna site in Platform 3, one patio level below where the Revolt of the Objects mural was found, is the most tocapu-like of any Moche mural yet discovered (Uceda and Morales 2009) (Figure 12.10). It is composed of two horizontal bands of two alternating, purely abstract geometric shapes almost at ground level with a red base line. Above the band of tocapu shapes is a large field of solid white. As the mural has only been partially preserved, we do not yet know how this mural looked in its entirety; however, in the existing fragment, the layout resembles some white Inka uncus that have a band of tocapus stretching horizontally across their

lower halves. One of the square tocapu-like elements of the mural is a single step-fret unit formed by interlocking yellow and gold shapes. The second tocapu-like shape is composed of two interlocking triangles, one red and the other black. The interior of each black and red triangle contains a solid white triangle. This motif appears in the headband of several Moche portrait vessels,[35] as well as on colonial textiles, queros, and paintings.

Moche murals with recognizable figural content can also be related to later tocapu designs. For example, a diamond-shaped horizontal band, also from Huaca de la Luna, that frames the head of a fanged figure (Figure 12.11) recalls an Inka tocapu motif often found on uncus in which there is a single band of nested diamond or rhomboid shapes. The Inka design is nonpictorial; its center is formed either by a cross or a quadripartite rectangle, while

figure 12.10
Mural framing the head of a fanged figure, Huaca de la Luna. (Photographs by Lisa Trever.)

the compositional elements of the Moche mural are pictorial with the framing first defined by criss-crossing red bands and then composed of a zig-zagging line and a head—a textile motif found in several cultures. The center depicts a fierce creature, modeled and painted en face. The pictorial effect of the frontal fanged face is clearly different from the concentric diamond shape with a cross in the center, but the design concept is the same. There are other rectangular patterned motifs on the walls at the Moche site of Huaca de la Luna (Figure 12.12a) that recall Moche textile designs as well as the tocapu pattern of the Dumbarton Oaks uncu. The grid of one of the murals is formed by thin red vertically and horizontally intersecting bands that seem to have first been marked out by incised lines. The interior field consists of a centrally placed fanged creature depicted en face, similar to the one just

figure 12.11
Mural framing the head of a fanged figure, Huaca de la Luna. (Photographs by the author.)

a

b

c

figure 12.12

a) Mural with rectangular patterned motifs at Huaca de la Luna; and b–c) Jama-Coaque ceramic vessel with tocapu-like images, Museo Antropológico Banco Central del Ecuador, Guayaquil, GA-1-2502-83. (Photographs by the author.)

described. From its head emerge curvilinear forms that are either integral parts of the creature's body or distinct but associated creatures. Two sets of vertical lines emerge from the top of the head and neck and form a central vertical axis. As they reach the red border, they bend outward at right angles, creating a kind of internal border as they bend again and angle either upward at the bottom or downward at the top. The figure is repeated in each of the panels and a rhythmic pattern is created by color. The panels alternate between having a white background with a red figure and a grayish blue background with a yellow figure. Although the media are different (and are separated temporally by a thousand years), the design concept on the Moche mural and Inka textiles, which are recognized as tocapus, is the same.

There are other coeval designs that are very similar to Inka and colonial Inka tocapu designs as well as to the recently found abstract Moche murals from Huaca de la Luna. These designs come from farther north on the coast of Ecuador, an area that has been little explored for this kind of representation. A late Jama-Coaque vessel (AD 100–500) is decorated with slip painting that superficially resembles the pattern and color scheme of the Moche mural just described (Figures 12.12b–c). The color alternation of green and red in horizontal registers of geometric units is similar to the pattern of the mural, which is insignificant in itself. But what is most striking on the Jama-Coaque vessel are three discrete rectangular forms in the registers that repeat in sequence around it, formed by geometric elements organized within a framed field (Figure 12.12c).[36] One of these forms is composed of a double-lined red frame with an open circle or "zero" in the interstices of each of the interior corners. In the center is a diamond shape formed by two red lines with a dot in the precise center. The organizing design is, therefore, a central figure with evenly distributed elements, or a quincunx.

One might regard this Jama-Coaque arrangement as being either simply decorative or only meaningful within the parameters of local invention; however, the three repeating motifs are very similar to later tocapus and the way they are arranged. The quincunx motif, in particular, has a long history in the Andes, and it continued to be used well into the colonial period as a tocapu design. Appearing in a variety of media, it can serve to convey precise images and ideas and is frequently used on one of the most common types of colonial "painted" quero, as noted by Jara (1972:65–66) (see Figure 12.5). The field of imagery on these queros is divided into two horizontal registers. The bottom register is decorated with flowering long-stemmed plants. The upper register is divided into two distinct parts: one half is devoted to reduced pictorial scenes, often derived from larger and more complex pictorial narratives (such as the battle between the Inka and the Anti, or jungle peoples), while the other half has two tocapus, arranged horizontally and separated by a flower. The most common tocapu has a quincunx design similar to the Jama-Coaque motif (Cummins 1988). The formal similarity, which spans more than a thousand years, may be based upon a pseudomorphic process of imprecise definition.[37]

Be that it as it may, Santa Cruz Pachacuti Yamqui (1993 [1613?]) used three tocapu motifs to represent the caves of origin at Pacaritambo (Figure 12.13) in his manuscript *Relación de antigüedades deste reyno del Piru*. Like Guaman Poma, he uses only pen and ink so that linear design and not color is significant. The middle cave, Tambotoco, is where Manco Capac and his siblings emerged into the world. The tocapu form that stands for this central cave is particularly close to the Jama-Coaque motif discussed previously. It has the same set of concentric framing lines with a circle placed in the interstices of each of the interior corners and a diamond shape that defines the center. Pachacuti Yamqui's tocapu is marked in two ways (Cummins 2007:292).[38] First, it is associated with sacred origin, something that we have already read in Molina. And second, it designates place. In Pachacuti Yamqui's example, the tocapu design was deployed to represent an event set within the context of Inka mythogeography. But the question then arises: is this tocapu design a fixed sign, and was it used by Pachauti Yamqui because it represented at least the concept of place, which then could be modified in some syntactical way to refer to a specific place?

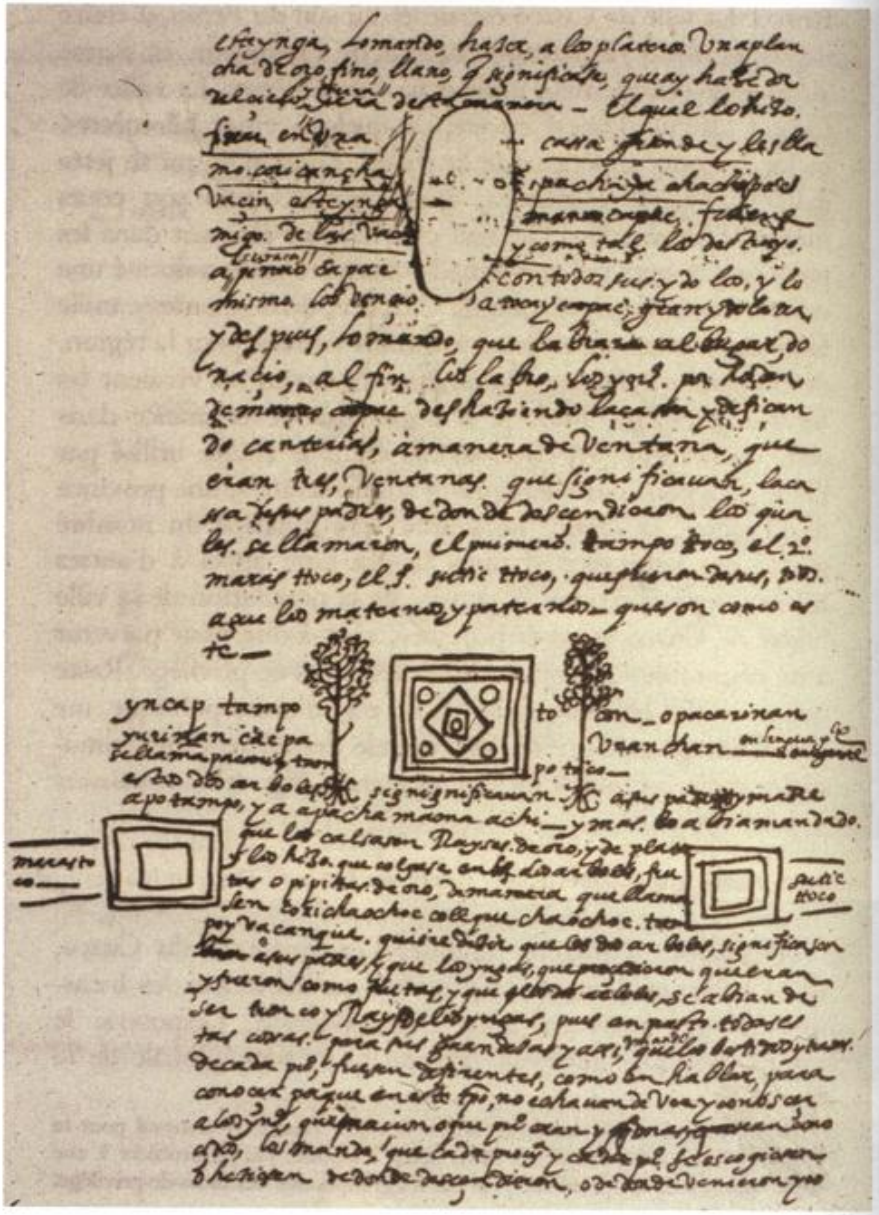


figure 12.13
Inka caves of origin, pen and ink drawing, from Juan de Santa Cruz Pachacuti Yamqui, *Relación de antigüedades deste reyno del Piru*, 1613 (?). (Reprinted from Santa Cruz Pachacuti Yamqui 1993 [1613?]; reproduced by permission of the Biblioteca Nacional, Madrid.)

There is another colonial image, created by Guaman Poma, that conflates two representational conventions in order to convey the concept of Tawantinsuyu, the Quechua term for the Inka dominion and the territoriality of the Inka empire as a physical space (Cummins 2007:290–291) (Figure 12.14). The image by Guaman Poma appears in Martín de Murúa's *Historia del origen y genealogía real del los reyes ingas del Perú* (1590). It shows a rudimentary rendering of an Andean landscape over which are superimposed five schematic cities. They are arranged within a geometric composition so as to represent the four parts of the Tawantinsuyu—Chinchasuyu, Collasuyu, Antisuyu, and Condesuyu—and its center. These places are then described in chapter 12, "De la division de las quatro provincias: Chinchasuyo, Collasuyo, Condesuyo, y Andesuyo." What is significant about the image by Guaman Poma is that the concept of Tawantinsuyu as a relational entity

figure 12.14
Schematic representation of Cuzco and the four *suyus*, color wash on paper by Felipe Guaman Poma de Ayala, from Martín de Murúa, *Historia del origen y genealogía real de los reyes incas del Perú*, 1590–1605 (?). (Photograph by the author, after Murúa 1590:82v.)

of four parts centered on Cuzco is conveyed in a manner that written words do not adequately capture, economically or conceptually. The text concerning Tawantinsuyu describes a political state, whereas the quincunx design with Cuzco in the center conveys immediately the conceptual hierarchy of Tawantinsuyu. More importantly, the compositional organization of this layer of the image is already familiar as a tocapu associated with Inka mythogeography. Guaman Poma's image of Tawantinsuyu is based on the same design concept as the tocapu used by Pachacuti Yamqui to represent Tambotoco. Again, color does not seem to be a signifying element of the tocapu design.

These colonial manuscript images are the only ones known so far in which a figure that can be identified as a tocapu is glossed in terms of what it represents. Both Pachacuti Yamqui's and Guaman Poma's images depict places of extreme sociopolitical importance in Inka thought. The tocapu

can be said, therefore, to stand generally for these concepts, arranged perhaps by some formal syntax that, unlike the organizing principles of the khipu, has not been determined. The specifics of the narrative conveyed in these chronicles would have been recalled through oral poetic forms.

In the inventory made for Philip II at the time of his death, there exists an extremely important entry that bears on what the tocapu might signify. The entry was written at El Escorial, where objects of purely Inka and Aztec origin were kept. It describes an Inka uncu as "another shirt [uncu] of the Indians, that they [the Inka] call *cumbi* [and that is] woven of diverse colors and figures, of which the figures are signs [*señales*] of the coats of arms of the provinces that the Inka possessed, by which he knew them" (Sánchez Cantón 1956–1959 [1599]:334).[39] This text can be read against the Dumbarton Oaks uncu so as to interpret it as possibly being a map of conquered territories composed of tocapus (Cummins 2007:287–296).[40] What is important to note is that the term *figure* (*figura*) is further defined as "sign" (señal), which is still further glossed as representing a province (territory). I assume, therefore, that the uncu described in the inventory was composed of tocapus not unlike the Dumbarton Oaks uncu. Also important are the terms used to describe the uncu at El Escorial in comparison with those in other texts. When describing the "painted *tablas*" in Cuzco, Molina (2008 [1576]:4) said that they represent "la vida de cada uno de los yngas y de las tierras que conquistó, pintado por sus figuras" (the life of each one of the Inka and the lands that they conquered, painted by their figures). Three related terms are critical. First, both the Escorial entry and Molina's text mention specifically that the territories of the individual Inkas were represented. Second, these territories were indicated by the term *figuras*, which then is glossed as "señal," or sign, in the Escorial document. This means that the use of the word *figura* by Molina does not necessarily indicate a pictorial figure or some lost Inka painting system. Finally, both Molina and Sarmiento de Gamboa (1988 [1572]:48) use the term *tabla* for the object upon which the "figuras" were painted. And we know, as I have mentioned, that the first printed Quechua dictionary defines *tocapu* as "labor en lo que se borsla o texe o en vasos, tablas &c." (Anonymous 1951 [1586]:84).

What do these texts tell us about the tocapu? Clearly, the tocapu could be used to represent concepts of space and time as well as events, but this does not mean that a tocapu is a sign (señal) that was fixed to any one of these particular concepts. The placement of one tocapu in relation to other tocapu, and in relation to the meaning of an object as a whole, may in itself constitute the field of semantic value for a tocapu, just as is the case for the knots on a khipu. A knot is, in and of itself, meaningless. It acquires the capacity to convey different meaning or semantic value depending on the khipu itself and its physical placement on the khipu. That is, where the knot appears on the dependant cord is the primary condition that then allows for further encoding through the directionality of the knot, form of the knotting, genre of the khipu, and so forth. And, in fact, in one of the only texts in which the khipu seems to be compared to the tocapu, they both appear to have a certain signifying equivalence. In a late sixteenth-century oral account, the khipu and "colors on a board" (tocapu?) were both said to have been used (interchangeably?) to administer the laws of the Inka. This information comes from the 1582 testimony of the mestizo Bartolomé de Porras (1904 [1582]:197) who stated in Cuzco that there were twelve Inka judges who "could not arbitrate, but in regard to adjudicating, they passed judgment by the laws that they had, which they understood by signs that they had on khipus which are knots of different color, and by other signs that they had on a board in different colors by which they knew the penalty that each criminal deserved."[41] The term for *colores* (paintings) on the tablas (boards) is *señales*, just as the knots of the khipu are also called "señales."

Covarrubias Orozco gives a specific set of definitions for the term *señal* based on the semiotics of Saint Augustine as read though Thomas Aquinas. He defines señal as "unas veces significa lo mesmo que seña y otras veces el indicio de la cosa ausente, como la huella del javalí impressa en la tierra es señal de que anda en aquel lugar" (sometimes it

signifies the same things as seña and other times it is the index of the thing that is absent, such as the hoofprint of the wild hog impressed in the ground is a sign of it moving in that area) (Covarrubias Orozco 1998 [1611]:934). *Seña* has a more tantalizing definition that posits how the abstract geometric designs of the tocapu might have functioned. Covarrubias Orozco (1998 [1611]:933) defines the term *seña* as "la señal que de concierto tienen entre dos para entenderse. Hablar por señas y hazerse señas, es declararse con algunas señales o movimiento del cuerpo, manos o rostro." The point is that these Spanish definitions are understood to be about nonlinguistic concepts, and the tocapu clearly did not correspond to a particular sound or word. No knot on the khipu has an assigned value in and of itself; it acquires a nonlinguistic, numerical value by positional relationship. It may be that tocapus acquire meaning in a similar fashion, but in a more expanded way. The khipu is a discrete system, and any knot outside of a khipu loses the signifying value it acquired by its positional relationship as a part of the khipu. Tocapus, as already described, are not bound to any single object on which they appear. In this sense, they are free-floating signifiers, potentially capable of acquiring differing meanings in relation to the objects on which they appear and in relation to other tocapus. This relational context of meaning may, in fact, be one of the similarities between the signifying systems of the khipu and tocapu. The fact that the same tocapu design can indicate different but related places and ideas suggests that we need to examine a controlled set of data to see whether the use of tocapu is fixed or variable.

The series of Inka and Coya portraits in the manuscripts by Guaman Poma and Murúa provide such a controlled data set. In particular, we need to study the Inka figures, as they are all depicted wearing uncus with some form of tocapu arranged in differing patterns. Although these are the earliest extant Inka portraits with contextualized tocapus, they have not been rigorously studied in relation to each other.[42] Moreover, Guaman Poma's figures are often studied as an isolated or closed series (Adorno 1986; Frame 2005, 2010; Quispe-Agnoli 2008), while the three manuscripts are intimately related to each other in terms of origin, form, and content. The working relationship between the two men was extremely complex, but we now know two important facts concerning these portraits. First, Murúa himself created the figures of the Inka in both of his manuscripts; however, Murúa and Guaman Poma worked together on some of the same Inka portraits in the Galvin manuscript. Murúa produced the main part of the portraits, notably the figure, ground, and dress. Guaman Poma added some of the details to the Inka imperial paraphernalia, such as the scepter. Furthermore, Guaman Poma was clearly inspired by this working relationship when he created his own series of Inka portraits in the *Nueva corónica y buen gobierno*. In fact, he acknowledges this relationship by using the colors of the Inka garments as they appear in the Galvin manuscript to augment his black-and-white drawings.

The close relationship between these closed sets of images allows us to compare the portraits of the same Inka, Manco Capac, and the place of tocapu in them (Figures 12.15–12.17). The images in all three portraits are very similar in pose and iconography. The figures stand with an open-leg stance. Both of the Murúa portraits show the figure's right foot placed forward, with the rest of the body depicted in three-quarters view and looking to the left. Guaman Poma's figure reverses the pose of the legs and faces frontally. The accompanying text in the *Nueva corónica* describes the salient iconographic features that appear in all three portraits: "He had a green *llauto* [headband] and a feather parasol headdress ornament and an ear ornament of fine gold, the *masca paycha* [red woolen fringe worn over the forehead], *uayoc tica* [flower ornaments] and in the right hand a *conga cuchona* [ax-scepter] and in the left [hand] he held a parasol and his cape was red and a tunic [was] red in the upper part, with three bands of tocapu in the middle and bright blue on the bottom and *ataderos* on his feet" (Guaman Poma 2001 [1615]:87).[43] The colors of the headband and uncu, as described by Guaman Poma, are those that appear in the Galvin manuscript. The objects held in the two hands are

figure 12.15
Portrait of Manco Capac, color wash on paper, from Martín de Murúa, *Historia del origen y genealogía real de los reyes incas del Perú*, 1590–1605 (?). (Photograph by the author, after Murúa 1590:9v.)

both identified and appear in all three portraits,[44] as do the same elements of the Inka's head ornament. The three *betas,* or bands, are described by Guaman Poma as having tocapus, and while tocapus are not mentioned in either of the two Murúa manuscripts, they appear in both representations of the uncu worn by Manco Capac. The earliest portrait by Murúa has the three bands of tocapu as mentioned by Guaman Poma and is the source for Guaman Poma's image.

Nevertheless, the images of the uncu are quite different between the manuscripts. First, Guaman Poma's grid is made up of three unbroken horizontal lines, while Murúa's field on the uncu is laid out in a grid of intersecting vertical and horizontal lines. The vertical lines are individually drawn between the horizontal lines, and they do not connect with each other. This design creates a left-to-right diagonal into which the designs of the tocapu are placed. The diagonal is intensified by the repetition of the

figure 12.16
Portrait of Manco Capac, color wash on paper, from Martín de Murúa, *Historia general del Perú*, 1616. (Photograph by the author, after Murúa 1616:21v; reproduced by permission of the J. Paul Getty Museum, Los Angeles.)

same tocapu shape. The sense of repetition is further emphasized by the use of just four tocapu designs that are highly simplified. They almost seem like placeholders or notations for what would be the more complex tocapu forms. This regularized diagonal arrangement and repetition of just a few tocapu-like forms is just the opposite of what is depicted in the 1590 portrait of Manco Capac by Murúa. Most noticeably, the forms of the tocapu are very different and have a more complex colored design. Second, no regular pattern of organization can be discerned because no single tocapu is repeated. It is as if Guaman Poma wished to conceal his knowledge of the tocapu that is displayed in the Murúa portrait in the Galvin manuscript.[45] The portrait of Manco Capac in the second Murúa manuscript (the Getty manuscript) is once again different. Here the framing grid lays out only two horizontal rows of tocapus. Each tocapu design is distinct, and because they are much larger than in the other two portraits,

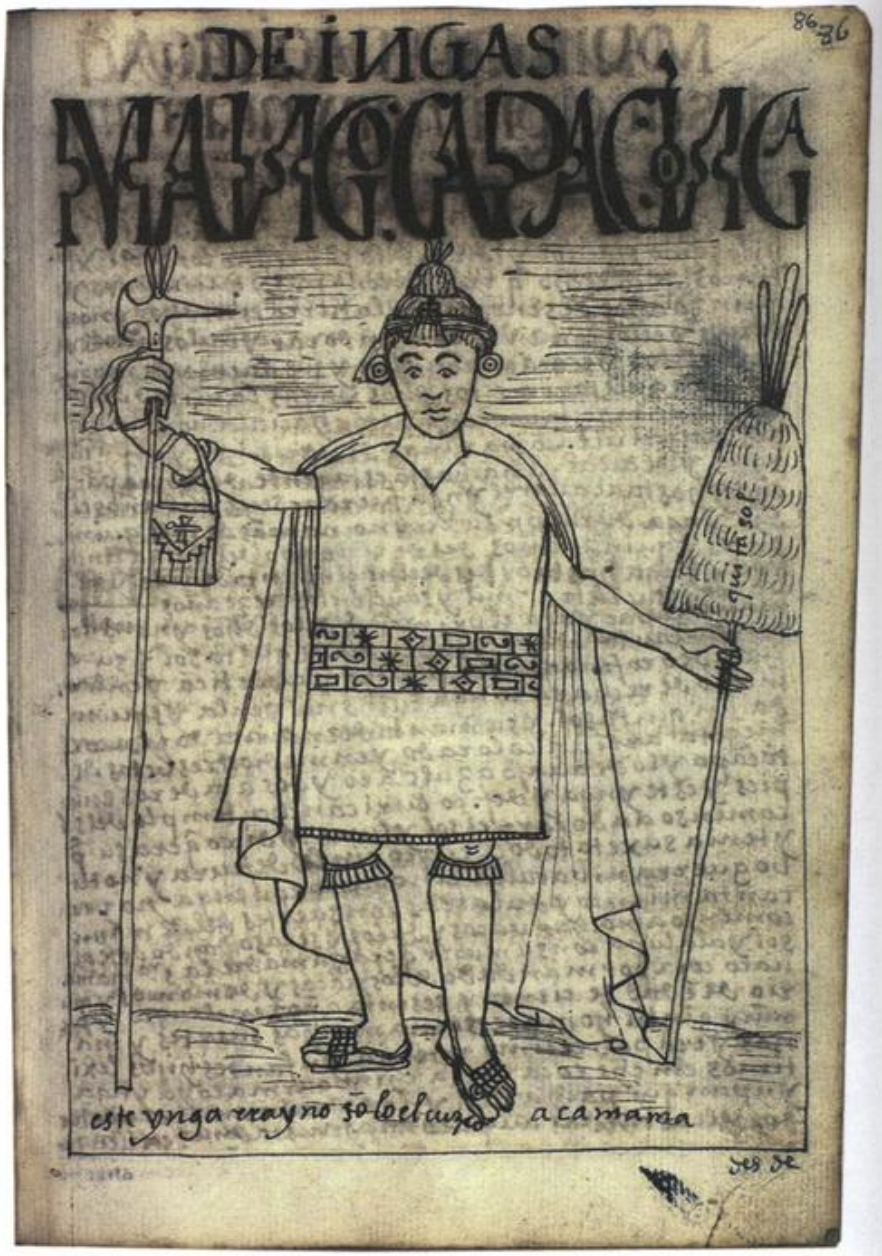


figure 12.17
Portrait of Manco Capac, ink on paper, from Felipe Guaman Poma de Ayala, *Nueva corónica y buen gobierno*, 1615. (Reprinted from Guaman Poma 2001 [1615]:86; photograph courtesy of The Royal Library, Copenhagen.)

their different elements are much more legible. In contrast to the two other portraits, the Getty manuscript's two central tocapu motifs are figural and include a bird on the upper portion and a llama on the lower portion; this figuration is perhaps a colonial development.

If we take into account Murúa's keen interest in observing and representing the minute details of Inka textile production both in his images and in his remarkable transcription of an Inka weaving,[46] then the radical differences between his depictions of tocapus in his two portraits of Manco Capac seem significant in terms of how we can understand the tocapu as a consistent set of signs. This issue is compounded by Guaman Poma's portrait, which also draws from Murúa as a source. All three portraits repeat the key iconographic elements of the figure without significant change, and only the tocapu designs and layout differ considerably between them.

I believe that we can look at the three portraits of Manco Capac as a cautionary tale warning against the interpretation of tocapus as a fixed set of signs. They do not coalesce as a whole into any meaningful or consistent pattern in this intimately related set. Unfortunately, the tocapus in Guaman Poma's images have been interpreted as a key to the tocapu in general, based upon an unfounded sense that he was trying to express a profound and interpretive essence of the tocapu. Nonetheless, I have made clear that the tocapu could have a specific signification. A tocapu could be used to represent or stand for or designate place (we do not really know how the relation between signified and signifier was understood), and the same tocapu design could be used to designate different places.[47] It also is a form that has both great geographic and temporal range, if we are to read the Jama-Coaque and Moche images as tocapus. The historically known tocapu is also sufficiently arbitrary that it can be used in profoundly different cultural contexts such as Christian orthodox paintings, queros, crosses, and so on. Different tocapus can also be used in precisely the same cultural context, as demonstrated by the Murúa and Guaman Poma portraits. Furthermore, in the colonial period, tocapus were combined with pictorial images, such as on queros, which suggests that they participated in some way in framing or marking the narrative that underlies the pictorial compositions. The emergence of the pictorial narratives in the colonial period may have been an expression of what the tocapu and the objects on which they appear were able to communicate prior to conquest. This relationship between tocapu and pictorial image is probably contextual, and they signify in relation to the vessel and its use (Cummins 1998, 2002).

Clearly, the tocapu is polysemic. More importantly, unlike the khipu, the range of where and how the tocapu appeared was expanded after the Spanish arrived in an almost unimaginable way, and, as far as I know, this proliferation went unhindered in the colonial period. The tocapu was never subjected to destruction or prohibition, as was the khipu. The tocapu as a signifying form may have a great deal to tell us once a critically tempered analysis is undertaken to examine the relationship between colonial pictorial narrative and tocapu. This study will have to look beyond the interpretation of any tocapu as a discrete sign existing in a specific context, such as those on queros or textiles. It will be a study that first looks at the historical range and diversity of tocapus to arrive at a functional description of the tocapu and that, more importantly, defines the semantic field in which the tocapu signifies. Perhaps we may then be able to interpret them with some greater precision.

1 I gratefully thank Adam Jasienski, who gave a very insightful reading of this essay and helped bring it into better focus and clarity.

2 See Brokaw (2005) for the possible contradictions between the decimal and binary operations of khipus. Khipu studies have had a renewed interest in the past twenty years; however, the results are not the same as they have been in Maya studies, and so they have become ever more descriptive of khipu structures and increasingly repetitive. See, for example, Chirinos (2010), whose book of almost four hundred pages basically summarizes the studies of the previous two decades.

3 I write "imagined" because, as far as I can tell, all extant khipus are understood by scholars to be functional objects that were created as a means to encode and decode information. This may very well be, but one must at some point ask whether some khipus might represent the metacategory of the khipu itself rather than being just a discrete encoded text. The alphabet, for example, stands for the possibility of all written texts but is not a text itself. In general, Mesoamerican and Andean studies focus on the function of inscriptions, writing, and image made as things created to be decoded for the information they contain. Hence epigraphy, iconography, and the like are recovering bits and pieces of Pre-Columbian history. The more of that history that can be recovered from one culture, the more highly valorized the culture that produced them becomes, along with, for some, the scholar who studies that culture. For Michael Coe, according to his remarks at the conference that inspired this volume, the fact that the Maya produced a form of writing most approximate to other great literary cultures is a clear mark of superiority, a sociocultural position that no other culture in the Americas achieved. This may or not be true, because only Maya glyphs have been successfully translated; however, the hierarchy implied by such remarks has a long colonial history. This notion of cultural superiority is best articulated by Acosta (1940 [1590]), who created a descending hierarchy of cultural achievement based upon a society's level of writing.

4 Arellano (1999) noted that the study of the tocapu is only at its very beginning. Regardless of various symposia and essays that have appeared since the publication of her essay, tocapu studies have not advanced in any profound way.

5 Arellano (1999) has written the best summation of tocapu studies. De Rojas Silva (1981, 2008) offers perhaps one of the best recent studies of the tocapu in that he begins with an overview and critique of previous studies. Unfortunately, his bibliography is very restricted, and he concentrates on the literature produced in Peru and Bolivia. He enters into his own interpretations based on the preconceived idea that the tocapu represents the ayllu and *panaka* and, therefore, is associated with concepts similar to those of European heraldry. This preconception leads to a rather speculative linguistic analysis. Nonetheless, De Rojas Silva's (2008) work is the best recent study of the tocapu.

6 When I refer to scholarship that posits a "lost Inka writing," I mean studies that suggest that there were Inka systems that have some kind of phonetic equivalent, can be compared to alphabetic writing, and can be transcribed directly, as if they were commensurate with alphabetic writing, as suggested by Jara (1967, 1970, 1972, 1975). Sansevero (1750) was the first to publish an account that provides khipu equivalents for the alphabetic sounds of English, French, German, Latin, Italian, and Spanish. Modern followers of Sansevero in Italy and Spain have continued to exploit this source in relation to the so-called Naples documents. The studies by Salomon (2004:23–39), Urton (2003:ch. 1), and Ascher (2002), who discuss the khipu from an expanded sense of writing, are altogether different in approach and rigor and have much merit in pushing the boundaries of notions of record keeping, writing, and the place of Andean systems within them. There are, however, numerous khipu studies that also uncritically and naively use images and texts, especially those of Guaman Poma, as if they were simply transparent sources for decoding Andean forms of recording (for a recent example, see Moscovich 2006).

7 There is a handful of Andean colonial texts that mention either Inka paintings or places where they were kept. Almost all of these texts were collected and published by Ibarra Grasso (1953). Many of these texts are somehow connected to a set of

paintings commissioned in 1571 by Viceroy Toledo, who also commissioned Sarmiento de Gamboa (1988 [1572]) to write his *Historia de los incas* at the same time and in relation to the production of these paintings. The paintings, now lost, have been cited uncritically by some modern authors to argue for both lost writing and painting systems (see, for example, Porras Barrenechea 1963:103–135). Too often such claims are simply stated to be proven—"es un hecho ya científicamente comprobado que los Inkas del antiguo Perú usaron una verdadera escritura" (Jara 1975:43–44)—or the evidence is purposefully distorted so as to demonstrate that the "clearest antecedent" to the Toledo portraits of the Inka "is Inka" (Julien 1999:64, 2000:56–61). This is pure hyperbole based on a lack of precise research (see Cummins 2008:173n51). There are very few sources that mention some form of Inka images that recorded Inka history. One of the most often cited appears in Molina's *Relación de las fábulas y ritos de los inkas* (2008 [1576]:4): "Y para entender donde tuvieron origen sus idolatrías porque es así que estos no usaron de escritura, y tenían en una casa de el sol llamada Poquen Cancha que es junto al Cuzco, la vida de cada uno de los yngas y de las tierras que conquistó, pintado por sus figuras con unas tablas y qué origen tuvieron y entre las dichas pinturas tenían asimismo pintado la fabula siguiente." (And in order to understand whence originated their idolatries, for it is such that these people did not use writing, and they had a house of the sun called Poquen Cancha that is near Cuzco, the life of each one of the Inka and the lands that they conquered and their origin were painted by figures on boards and between these paintings they also had painted the next story.) Molina, however, did not mention any such paintings when he was directly asked about the Inka use of señales in 1582 (Molina el Cuzqueño 1904 [1582]:1193–1195).

Molina's passage is very much related to what Sarmiento de Gamboa (1988 [1572]:48) writes: "Allegóse a esto la grandísima diligencia del Pachacuti Inga Yupanqui, noveno Inga, el cual hizo llamamiento general de todos los viejos historiadores de todas la provincias que él sugetó, y aun de otros muchos más de todos estos reinos, túvolos en la ciudad del Cuzco mucho tiempo examinándoles sobre las antigüedades, origen y cosas notables de su pasados destos reinos. Y después que tuvo bien averiguado todo lo más notable de las antigüedades de sus historias, hízolo pintar por su orden en tablones grandes, y deputó en la Casa del Sol una gran sala, adonde las tales tablas, que guarnecidas de oro estaban, estuviesen como nuestras librerías, y constituyó doctores que supiesen entenderlas y declararlas. Y no podían entrar, donde estas tablas estaban, sino el Inga o los historiadores, sin expresa licencia del Inga." (Due to the greatest diligence of Pachacuti Inga Yupanqui, the ninth Inka, who convened together all of the old historians of all of the provinces that he had subjected and even many more, from all of the kingdoms, and detained them in the city of Cuzco for a long time, questioning them about antiquities, origins and notable things from the histories of these kingdoms. And afterward when he had ascertained all of the most notable things from the ancient happenings of their histories, he ordered them painted on great boards, which were trimmed with gold, as our libraries were, and he established a group of docents who would know how to understand them and register them. And it was not possible to enter to the place where these boards where held, unless one was Inka, or one of the docents, without the express permission of the Inka.) Neither author actually describes how these paintings appeared, allowing authors such as Julien (1999, 2000) to imagine an Inka visual source for which there is, in fact, no evidence.

8 Aside from nationalist desires to establish Andean cultures as comparable to other ancient cultures, there is also the desire on the part of scholars to find the illusive key to a lost system and to have it reach the popular media. For example, on August 17, 1970, *Time* magazine printed an article entitled "The Literate Incas," which recounted the following: "For all their engineering skills, these early Americans [Inkas] have long puzzled scholars because, unlike all the great peoples of the ancient world, they seemed to have no written language. Did they pass on their culture from generation to generation only by word of mouth? Now a distinguished German ethnographer has offered a fresh solution to the puzzle. The Inkas, Dr. Thomas S.

Barthel told the 39th International Congress of Americanists in Lima last week, did indeed have a primitive script. It has remained available, though unrecognized, through the centuries. Further, said the Tübingen University professor, he has translated about 25 of the symbols.

"Barthel's claim provoked some scholarly skepticism, even though the onetime Wehrmacht cryptographer has shown skill at cracking ancient linguistic codes. Fifteen years ago, Barthel reported deciphering the so-called 'talking boards' of Easter Island in the South Pacific. The Inka mystery was every bit as challenging. But he had invaluable help from Peruvian archaeologist Victoria de la Jara. If there was a written language, she suspected, it must be hidden in the geometric designs (tocapus) found on priestly garments and wooden vessels. For many years, de la Jara immersed herself in Inka history and painstakingly catalogued tocapus. But she failed to find what she was looking for: an Inka equivalent of the Rosetta stone, the key that opened ancient Egyptian hieroglyphs to modern understanding. Finally, she turned her researches over to Barthel. With the same shrewdness that enabled him to decipher several Allied codes during World War II, Barthel made use of an important clue in her material. Many of the Inka vessels bore pictures as well as tocapus. In fact, one common scene portrayed the act of toasting the gods. After studying numerous pieces, Barthel found a matching tocapu that, he believed, recorded the same act.

"Son of the Sun? That connection established, Barthel turned to the tocapus embroidered on one notable Inka relic—a priestly garment, or uncu, now in Washington's Bliss Collection. He decided that the repetition of some of the tocapus meant that the same message was being emphasized. More important, he noticed that several signs, like Chinese pictograms, resembled real objects. That enabled him to pick out the symbols for the supreme Inka deity, Kon Ticsi Viracocha (popularly, Kon-Tiki), who is represented by the tocapu for heat (kon) and two bases of pyramids (ticsi), meaning foundation and earth. By the time Barthel finished, he had translated an entire column of tocapus: 'Kon Ticsi Viracocha is the son of the sun, the heat, the teacher of the earth, the priest, the origin of light, the lord of the sun.'"

9 Bernabé Cobo (1956 [1653]:bk. 4, ch. 1, 154) is quite insistent that *quilca* did not mean writing: "No qualquiera cosa que se halla con nombre propio de la lengua de alguna nación de indios se ha de juzgar por sólo indicio ser propio desta tierra; porque puede ser que le hayan puesto el tal nombre los indios por alguna semejanza y afinidad que tal cosa tenga con aquello que propriamente significa el tal nombre, como vemos en este reino del Perú haber ya puesto algunos nombres de la lengua general a cosas que notoriamente se sabe que no haberlas habido en esta tierra antes que la poblaron los españoles; como es a la gallina, atahualpa; el espejo, quispi; y al escribir, quelcani. Los cuales nombres primeramente significan otras cosas; porque el primera significa un Rey Inka; el segundo, cualquiera cosa vedriosa y transparente; y el tercero, dibujar." (Not everything that has a name in the language of some nation of Indians can be judged by indication to be typical of this land; because it may be that the Indians gave it this name because of some similarity and relationship that this thing might have with that which the name means. This we see in the nation of Peru where they use Quechua names for things that are well known not to have been here before the Spanish settled [here] such as calling a hen, *atahualpa*; a mirror, *quispi*, and writing, *quelcani*. These words signify other things originally, because the first means the Inka King; the second, anything glassy and transparent; and the third, to draw.)

10 There are at least twenty-six entries in the Quechua-to-Spanish section of González Holguín's *Vocabulario de la lengua general de todo el Perú, llamada lengua quichua o del inca* that use some form of the word *quilca* (1989 [1608]:301). Quilca is so undifferentiated as a concept that it can mean to write, to read (1989 [1608]:561), to draw, to paint, and to sculpt (1989 [1608]:513).

11 One of the very first mentions of the tocapu appears in the work of Cieza de León (1985 [1550]:ch. 6), who states that when the Inka emerged from the caves of origin at Pacaritambo they "salieron vestidos de unas mantas largas y unas a manera de camisa sin collar ni mangas de lana riquisima, con muchas pinturas de diferentes maneras que ellos llaman tocabo [tocapu] que en nuestra lengua quiere decir vestidos de reyes Paccaritambo . . . y que las mujeres salieron vestidas tan ricamente como ellos." (They came dressed in long blankets and in a type of

collarless and sleeveless shirt made of the loveliest wool, with many pictures of different types that they call tocabo [tocapu], which in our language means garments of kings of Paccaritambo . . . and the women came dressed as opulently as them."

Almost one hundred years later, Francisco Dávila, in his sermon for the fourth Sunday of Advent published in 1648, used the term in Quechua to refer to Inka royal garments. The English translation of the Spanish text reads: "And then, after all this everything is finished, nothing remains. What is there of the Inkas who were once so feared? What has become of their silver and gold? Their garments of royal tapestry weave? Their cups for drinking? Their fields? Their palaces? Their wives? Today, we can't even remember their names." In the Quechua version, the objects are mentioned using their proper Quechua names: "Chaymantari llapam ymahInkacaccapas ppuchucan, manam yntallapas tacyanchu. Maymi cunan ñaupachica manchafcca Yncacuna? Maymi collqquen, ccorin? Toccapuccompincuna, aqquillan, qquerun, chacran, hatun huacin, huarmincuna? Mana ñam futillantapas yachachicchhtlu" (Francisco Dávila 1648:43).

12 This does not mean that one cannot find continuity in symbolic forms from Pre-Columbian to contemporary expression, as Salomon (1998) and Mannheim (1998) have demonstrated. But it is not something that is readily apparent, nor unmediated by history, as these two scholars have amply demonstrated.

13 For a historical account of how this process works, see Ginzburg's 1983 study of sixteenth- and seventeenth-century Italian agrarian rituals performed by Friulian peasants and how the perception of these rituals by their participants changed because of continued and systematic investigations by inquisitors.

14 Studies of khipus, such as the one by Salomon (2004), demonstrate a much more theoretically and historically sensitive level of awareness in terms of contemporary use and understanding. There is as of yet no such subtlety in the discussion of contemporary Andean woven designs and their relation to historical precedents.

15 The clearest example of the difference is expressed by Acosta (1940 [1590]:bk. 1, ch. 1–11) in his *Historia natural y moral de las Indias* and in his exchange of letters with Juan de Tovar (1951:77–78) in Mexico, in which he questioned the value and legibility of Mexican painting, in part because this was not how information could be gathered in Peru. Here I must disagree that Inka representation was similar to the Aztec system as is posited by Pärssinen and Kiviharju (2004:24–28).

16 Yuri Valentinovich Knorosov's papers deposited at Dumbarton Oaks chronicle both his success at demonstrating that Maya glyphs were in part phonetic based on the Yucatec language and his unsuccessful attempt to decipher the Inka tocapu.

17 This remarkable introduction tries to orient the anticipated reader/viewer (Charles V) to the form of the temporal content of the manuscript. The orientation of the year glyphs so as to be commensurable with the spatial conventions of a Western written text (reading horizontally from left to right) seems so visually transparent and natural that those working in the field of Mesoamerican anthropology and history who wrote the descriptive account of the Codex Mendoza decided to skip any discussion of folio 1v, beginning instead with folio 2r. This is presumably because the glyphs of the years are not considered by the authors to be "pictorial" (see Berdan and Anawalt 1992:vol. 2).

18 Nearly all scholars (De Rojas Silva 2008; Ficca 2007; Frame 2005, 2007; Gentile L. 2008; Glynn 1981; Jara 1967, 1975; Radicati di Primeglio 1984; Silverman 1999; Ziółkowski et al. 2008) who have recently investigated the tocapu concentrate their research in Peru and, therefore, rarely study the tocapu in relation to other systems in the Americas, especially those from Mesoamerica. Such a comparative approach could reveal how few and vague descriptions of the tocapu are. The question then becomes why?

19 All translations are by the author.

20 See Pärssinen and Kiviharju 2004 for the most complete set of written documents based on the transcription of testimony taken from khipus. See also the various essays in Quilter and Urton 2002.

21 The analogy made to the tocapu by the phrase "almaisales moriscos," which is used to describe them, is ambiguous. The root *maisl* in Arabic means "pattern," and the word is also used in the seventeenth century to refer to a Catholic liturgical garment known officially as the "humeral veil."

22 Murúa (1590:66v) seems to have copied Sarmiento de Gamboa and writes, "muchos de los que no han estado en este Reino del Perú, ven las Indias, ni han visto esta tierra ni haber tratado con indios, han de dudar muchas cosas que en este libro se dicen, de las cuales me pareció bien advertirlos donde se trata de todas las cosas destas indias, citando los viejos y antiguos quipucamayos, contadores deste dicho Reino, donde tratan dellas, en su quipus y memorias, sin que falte una hijota [*sic*], como diremos a su tiempo." (Many of those who have not been to this Kingdom of Peru, see the Indies nor have they seen this land nor dealt with the Indians, must doubt many of the things that are said in this book, among which it seemed to me a good thing to warn them where there are things which deal with accounts of the Indies, citing the old and ancient quipucamayos, recorders of the aforementioned kingdom, where they discuss the Indies, in their quipus and their memories, without missing one thing, as will be discussed further on.)

23 "Lo cual era una invención buena para dejar por memoria lo que ellos querían, pero no iba por pinturas, ni cifras, como se usaba en la nueva España, mas por otra parte harto más oscura y digna de ser sabida: ésta era un género de nudos hechos, como dicho es, en unos cordones algo gruesos, a manera de pater noster, o de rosario o nudos de cordón de nuestro P. San Francisco."

24 Recent work on the two Murúa manuscripts (1590, 1616) proves conclusively that the claims made in the Naples documents, which state that Guaman Poma was not the author of *Nueva corónica y buen gobierno*, are based on modern fabrications. The claim of these documents is that Guaman Poma sold his name, as is witnessed by a "contract" (in a style unlike any other in Peru), and that the drawings in the *Nueva corónica y buen gobierno* were actually done by the Jesuit Gonzalo Ruiz. If this were true, he would have also produced all the drawings and watercolors that are understood to be by Guaman Poma and which predate the *Nueva corónica*. Furthermore, the claim means that this Jesuit worked for the Mercedarian Martín de Murúa as an assistant. If so, then the Jesuit ruse to buy Guaman Poma's name so as to make him the pseudo-author of the *Nueva corónica*, which according to the Naples documents was composed by Blas Valera and illustrated by Gonzalo Ruiz, would have been put at serious risk of exposure by Martín de Murúa. Not only is the first part of the *Nueva corónica* based upon the structure devised by Murúa, but certain key texts in it were first written by Murúa, including textual claims about authorship that have been recovered by Juan Ossio and myself (Cummins 2008; Cummins and Ossio n.d.). The virulent attacks made in *Nueva corónica* against the moral character and credibility of Murúa as a historian also put at serious risk the exposure by Murúa himself of this supposed Jesuit ploy. Domenici and Domenici (2003) accept uncritically the documents as a key discovery for the interpretation of both the Inka khipu and tocapu. They also accept the documents' claim that Pizarro offered the Sapa Inca poisoned wine, whereas for anyone with knowledge of Andean drinking customs such a scenario is clearly impossible.

25 The extremely petulant, aggressive, and threatening essays (Miccinelli and Animato 2001) that invoke Italian libel laws against scholars who question the veracity of the documents owned by the Miccinelli family demonstrate the intellectual climate that anyone studying these documents must confront in Italy.

26 Mariusz Ziółkowski, after attending the lecture upon which this essay is based, understood the value of the Berlin cross with tocapus and presented the outlines of the argument that he heard at Dumbarton Oaks at a symposium entitled "Los Sistemas de Información Inka: Quipu y Tocapu" in Lima on January 15–17, 2009.

27 The cross, probably eighteenth century, originally was made so as not to have the body of Christ attached. The base also indicates that it was attached to something else, probably the altar, and that it could be removed so that it could be carried in procession or held before the community in Mass.

28 Jara (1970, 1972) repeatedly states that the tocapu is never used within a Christian context, including in colonial paintings (1970:35), and that queros never have Christian scenes. Both statements are incorrect. By making them, however, Jara is able to assign tocapus to the names of Inka deities and then to claim that the tocapu is a secret and subversive form of Andean writing.

29 See note 11.

30 I have roughly translated *asseytar* as "to decorate" based on Covarrubias's (Covarrubias Orozco 1998

[1611]:22) definition of *afeite* as "el aderezo que se pone a alguna cosa para que parezca bien, y particularmente el que las mujeres se ponen en la cara." (The decoration which is applied to something in order to make it beautiful, and especially that which women apply to their faces.)

31 "Industrioso, el que tiene maña para haze lo que quiere hazer con prontitud y liberalidad" (Covarrubias Orozco 1998 [1611]:735).

32 As in his other of portraits of Inka kings, Guaman Poma is relying on the portraits done by Murúa in the Galvin manuscript (Murúa 1590:18v; see Cummins 2008).

33 "Y en una doctrina de Capachica, donde fui dotrinante, le vi a un indio *curaca* y viejo tener en un cordel grande de estos todo el calendario Romano, y todos los santos y fiestas de guardar, y me dio a entender cómo y de qué manera le sabía, y que a un fraile muy curioso de mi Orden los años pasados le había dicho se lo hiciese el calendario y que le diese a entender y que así como el fraile se lo iba diciendo, iba él asentando en su *quipu*." (In a doctrine of Capachica, where I was a doctrinarian, I saw an old Indian *curaca* who had [recorded] in that type of long string the entire Roman calendar, and all of the saints and Holy Days, and I came to understand how and in what way he knew and that some years ago he had told a very inquisitive friar from my order that he would make him such a calendar and he would teach him how to understand it and as the friar spoke it, he came to settle into it.) (Murúa 1590:77r).

34 For a photograph of a related, contemporary Andean ritual, see Phipps 2004:fig. 35.

35 For example, one of the most often reproduced ceramic portrait heads in the Staatliches Museum für Völkerkunde, Munich, has a headdress with a horizontal band of repeating interlocking triangles as seen in the Huaca de la Luna mural (see Mosely 1992; Stone 2002:108, fig. 86).

36 One cannot claim that these designs functioned as tocapus in the same manner as they did for the Inka; however, if they were signs that were not pegged to any language, but instead were widely identifiable concepts, then they potentially could have been used up and down the northern coast as a common set of images, much like the pictographs of the Plains Indians could transcend linguistic boundaries. We know from María Rostworowski de Diez Canseco (1977:96–140, 239–240) that there was constant traffic along that part of the coast of merchants as well as some painters just before the arrival of the Spaniards. Aside from a shared iconography on the North Coast, there may have been a set of commonly used geometric motifs that were recognizable across ethnic and linguistic boundaries, but this remains in the realm of speculation.

37 Panofsky (1939:70–71) coins the word *pseudomorphosis* to categorize Renaissance figures that are invested with a meaning that had not been present in their classical prototypes. In Panofsky's original use of the term, forms have been intentionally copied from ancient ones, and it is meaning that has been transformed or invented. In the case of the tocapu form being discussed, we cannot know if this process took place or if there existed a prototype that was intentionally being copied.

38 Santa Cruz Pachacuti Yamqui (1993 [1613?]:8v) mentions the names of the three caves and then writes "que son como este" after which appear the three tocapus, a gloss, and a description. The description of the place and the tocapu are then followed by the history of how "los bestidos y trajes de cada pueblo fuesen defirentes, como en hablar, para conoçer porque en este tiempo no echavan de ver y conosçeral los yndios qué nación o qué pueblo eran y para que mas sean conoçidos los mandó que cada provincia y cada pueblo se escohiesen o hiziesen de donde desçendieron o de donde venieron." The association with graphic sign and place is, thus, made by Pachacuti Yamqui through text and image. My discussion of Pachacuti Yamqui's drawing is deeply indebted to Harrison's (1989:78–81) analysis, which is the best discussion of the tocapu yet published in terms of its relation to other forms of Andean expression and the possibilities of how it can convey meaning.

39 "Otra camisa de yndios que dicen de cumbi [*sic*] texida de diversos colores y figuras, las quales son señales de armas de provincias que el ynga poseya, por donde las conocía, está apolillada y agugredada y no es de valor." It is clear that there is some relationship between the tocapu and heraldry (Cummins 2007; De Rojas Silva 1981; Escoari de Querejazu 1982).

40 For an alternative interpretation of the tocapu on the Dumbarton Oaks uncu, see Stone 2007.

41 "No podían arbitrar, sino en cuanto a juzgar, juzgaban por las leyes que ellos tenian, las cuales entendian por unas señales que tenían en quipos que son nudos de diferentes colores, y por otras señales que tenían en una tabla de diferentes colores por donde entendían la pena que cada delincuinte tenía."

42 Ficca (2007) attempts a comparison of the tocapus in the portraits in the first Murúa (Galvin manuscript) and in Guaman Poma's manuscripts in order to demonstrate that they represent a secret form of writing, which she then proceeds to interpret. The hermeneutics of the interpretation are based upon her acceptance of both Jara's spurious iconographic interpretations of specific tocapus (such as a design that visually reminds Jara of a spider) and the veracity of the Naples documents, which, among other things, claim that Guaman Poma is not the author of the *Nueva corónica* and was instead an invention of the Jesuit Blas Valera.

43 "Tenía su llauto a uerde y su pluma de quitasol y su orexa de oro fino, masca paycha, uayoc tica y en la mano derecha su conga cuchona y en la ysquierda un quitasol y su manta de encarnado y su camegeta arriua colorado y en medio tres betas de tocapo y lo de auajo azul claro y dos ataderos en los pies."

44 Murúa (1590) gives different terms to these objects and names some that do not appear in Guaman Poma. For example, Murúa uses the Quechua term for bracelet, *chipana*, while Guaman Poma does not mention it at all although it appears in the same place in his portrait. Murúa also calls the leg ligatures by their Quechua word, *chupacuro* (*flecadura* or *fluecos* in Spanish; González Holguín 1989 [1608]:122). Guaman Poma calls the weapon held in the right hand *conga cuchona*, which is translated by González Holguín (1989 [1608]:55) as "cuncacuchuna champi; la alauarda o hacha de armas" (the halberd or battle-ax). Murúa calls it *llacachuqui*, which González Holquín (1989 [1608]:206) translates as "lança de guerra enplumada" (feathered war lance). What Guaman Poma calls a *quitasol* is labeled *chocpa*, which is translated by González Holguín (1989 [1608]:117) as "hongo de punta a manera de sombero," that is, "a mushroom tip in the manner of a hat." Murúa also writes the word *ancallo* on the uncu, which Holguín translates as "ropa Antigua de de las mujeres; muy preciada" (ancient garment of women; very valuable), and which does not seem to make sense.

45 Guaman Poma's drawings of Andean objects rarely depict accurate, if any, iconography (see Cummins 1992).

46 See Desrosiers (1986) for a pathbreaking description of this page in the Galvin manuscript (Murúa 1590). See also Quispe-Agnoli (2005) for a further discussion of Murúa's textile transcription and the representations of tocapus in the images of Murúa and Guaman Poma. I have greatly benefitted from my discussions with Elena Phipps concerning Murúa's deep knowledge of Inka textiles.

47 I first presented these ideas in a conference on the tocapu that Gary Urton, Catherine Allen, Mary Frame, Jeffrey Quilter, and I organized at Harvard University in 2003. Quispe-Agnoli (2005), who attended the conference, expanded upon them in a very fruitful analysis.

REFERENCES CITED

Acosta, José de

1940 [1590] *Historia natural y moral de las Indias.* Edited by Edmundo O'Gorman. Fondo de Cultura Económica, Mexico City.

Adorno, Rolena

1986 *Guaman Poma: Writing and Resistance in Colonial Peru.* University of Texas Press, Austin.

Animato, Carlo

2001 Múltiples refutaciones y pruebas contra los cargos de los señores académicos, en defensa del documento Miccinelli, conocido HR. In *Guaman Poma y Blas Valera: Tradición andina e historia colonial,* edited by Francesca Cantú, pp. 87–98. A. Pellicani, Rome.

Anonymous [Alonso Bárcena?]

1951 [1586] *Vocabulario y phrasis en la lengua general de los indios del Perú, llamada quichua, y en la lengua española.* Universidad Nacional Mayor de San Marcos, Instituto de Historia de la Facultad de Letras, Lima.

Arellano, Carmen

1999 Quipu y tocapu: Sistemas de comunicación inca. In *Los incas, arte y símbolos*, edited by Franklin Pease G. Y., pp. 215–226. Banco de Crédito del Perú, Lima.

Ascher, Marcia

2002 Reading Khipu: Labels, Structures, and Format. In *Narrative Threads: Accounting and Recounting in Andean Khipu*, edited by Jefffery Quilter and Gary Urton, pp. 87–102. University of Texas Press, Austin.

Ascher, Marcia, and Robert Ascher

1981 *Code of the Quipu: A Study in Media, Mathematics, and Culture.* University of Michigan Press, Ann Arbor.

Barthel, Thomas

1971 Viracochas Prunkgewand (Tokapu-Studien). *Tribus* 20:63–124.

Berdan, Frances F., and Patricia Rieff Anawalt (editors)

1992 *The Codex Mendoza.* 4 vols. University of California Press, Berkeley.

Bertonio, Ludovico

1879 [1612] *Vocabulario de la lengua aymara.* B. G. Teubner, Leipzig.

Brokaw, Galen

2005 Toward Deciphering the Khipu. *Journal of Interdisciplinary History* 35(4):571–589.

Cerrón Palomino, Rodolfo

2008 *Voces del Ande: Ensayos sobre onomástica andina.* Fondo Editorial de la Pontificia Universidad Católica del Perú, Lima.

Chirinos Riva, Andrés

2010 *Quipus del Tahuantinsuyu, Curacas, incas y su saber matemático en el siglo XVI.* Editorial Commentarios SAC, Lima.

Cieza de León, Pedro de

1985 [1550] *Crónica del Perú: Segunda parte.* Fondo Editorial de la Pontificia Universidad Católica del Perú, and Academia Nacional de la Historia, Lima.

Clados, Christiane

2007 Neue Erkenntnisse zum Tocapu-Symbolsystem am Beispiel eines Männerhemdes der Inkazeit in der Altamerika-Sammlung des Linden-Museums. *Tribus* 56:71–106.

Cobo, Bernabé

1956 [1653] *Historia del nuevo mundo.* Edited by Francisco Mateos. Biblioteca de Autores Españoles 92. Ediciones Atlas, Madrid.

Conklin, William J.

1996 Huari Tunics. In *Andean Art at Dumbarton Oaks*, vol. 2, edited by Elizabeth Hill Boone, pp. 375–398. Dumbarton Oaks Research Library and Collection, Washington, D.C.

Covarrubias Orozco, Sebastián de

1998 [1611] *Tesoro de la lengua castellana o española.* Edited by Martí de Riquer. Alta Fulla, Barcelona.

Cummins, Tom

1988 Abstraction to Narration: Kero Imagery of Peru and the Colonial Alteration of Native Identity. PhD dissertation, University of California, Los Angeles.

1992 The Uncomfortable Image: Pictures and Words in *Nueva corónica i buen gobierno.* In *Guaman Poma de Ayala: The Colonial Art of an Andean Author*, edited by Rolena Adorno et al., pp. 46–59. Americas Society, New York.

1998 "Let me see! Reading is for them": Colonial Andean Images and Objects "Como es costumbre tener los caciques señores." In *Native Traditions in the Postconquest World*, edited by Elizabeth Hill Boone and Tom Cummins, pp. 91–148. Dumbarton Oaks Research Library and Collection, Washington, D.C.

2002 *Toasts with the Inca: Andean Abstraction and Colonial Images on Quero Vessels.* University of Michigan Press, Ann Arbor.

2003 The Tocapu Designs in Three Colonial Manuscripts: A Comparison. Paper presented at the symposium "Tukapu: An Inka Graphic Code," Harvard University, Cambridge, Mass.

2007 Queros, Aquillas, Uncus, and Chulpas: The Composition of Inka Artistic Expression and Power. In *Variations in the Expression of Inka Power*, edited by Richard L. Burger,

Craig Morris, and Ramiro Matos Mendieta, pp. 266–309. Dumbarton Oaks Research Library and Collection, Washington, D.C.

2008 The Images in Murúa's *Historia general del Piru:* An Art Historical Study. In *The Getty Murúa: Essays on the Making of Martín de Murúa's "Historia general del Piru,"* edited by Tom Cummins and Barbara Anderson, pp. 143–169. Getty Research Institute, Los Angeles.

Cummins, Tom, and Juan Ossio

n.d. "Muchas veces dudé Real Mag. açeptar esta dicha ympressa": The Task of Making Martín de Murúa's *La famossa historia de los reyes incas.* In *Essays in Honor of Pierre Duvial,* in press.

Dávila, Francisco

1648 *Tratado de los evangelios que nuestra madre la iglesia propone en todo el año desde la primera domínica de adviento, hasta la última missa de difuntos, santos de España y añadidas en el nuevo rezado . . .* 2 vols. Lima.

De Rojas Silva, David Vicente

1981 Los tocapu: Un programa de interpretación. *Arte y arqueología* 7:119–132.

2008 *Los tokapu: Graficación de la emblemática inka.* Producciones Cima Editores, La Paz.

Desrosiers, Sophie

1986 An Interpretation of Technical Weaving Data Found in an Early Seventeenth-Century Chronicle. In *The Junius B. Bird Conference on Andean Textiles,* edited by Ann Pollard Rowe, pp. 219–242. Textile Museum, Washington, D.C.

Domenici, Davide, and Viviano Domenici

2003 *I nodi segreti degli incas.* Sperling and Kupfer, Milan.

Escoari de Querejazu, Laura

1982 La heráldica incaica y los caciques Cusicanqui de Pacajes. *Arte y arqueología* 5–6:163–166.

Ficca, Giorgia

2007 Los tocapus del Codex Galvin y de la *Nueva corónica y buen gobierno*: Una o más formas de escritura colonial? In *Sublevando el virreinato: Documentos contestatarios a la historiografía tradicional del Perú colonial,* edited by Laura Laurencich Minelli and Paulina Numhauser, pp. 351–374. Abya-Yala, Quito.

Frame, Mary

2005 Tokapu: A Graphic Code of the Inkas. In *Tejiendo sueños en el Cono Sur: Textiles andinos; Pasado, presente y futuro,* edited by Victòria Solanilla Demestre, pp. 236–260. Grupo d'Estudis Precolombins, Barcelona.

2007 Los tokapu incas en la obra de Guaman Poma. *Revista andina* 44:9–69.

2010 What Guaman Poma Shows Us, but Doesn't Tell Us. *Ñawpa Pacha* 30 (1):25–52.

Gentile L., Margarita E.

2008 El *tocapu 285*: Consideraciones acerca de la llamada "escritura incaica." *ARKEOS: Revista electrónica de arqueología PUCP* 3(2). Electronic document, mileto.pucp.edu.pe/arkeos/images/documentos/colaboraciones/9-ce-mg.pdf.

Ginzburg, Carlo

1983 *The Night Battles: Witchcraft and Agrarian Cults in the Sixteenth and Seventeenth Centuries.* Translated by John Tedeschi and Anne Tedeschi. Johns Hopkins University Press, Baltimore, Md.

Gisbert, Teresa, J. C. Jemio, R. Montero, E. Salinas, and M. Soledad Quiroga

1996 Los chullpares del Río Lauca y el Parque Sajma. *Revista de la Academia Nacional de Ciencias de Bolivia* 70.

Glynn, William Burns

1981 *Introducción a la clave de la escritura secreta de los inkas.* Editorial Los Pinos, Lima.

González Holguín, Diego

1989 [1608] *Vocabulario de la lengua general de todo el Perú, llamada lengua quichua o del inca.* 3rd ed. Universidad Nacional Mayor de San Marcos, Editorial de la Universidad, Lima.

Guaman Poma de Ayala, Felipe

1936 [1615] *Nueva corónica y buen gobierno.* Institut d'Ethnologie, Paris.

2001 [1615] *Nueva corónica y buen gobierno.* Edited by Rolena Adorno. Royal Library of Denmark, Copenhagen. Electronic document, www.kb.dk/elib/mss/poma/, accessed September 14, 2010.

Guchte, Maarten van de

1990 Carving the World: Inca Monumental Sculpture and Landscape. PhD dissertation, University of Illinios, Urbana-Champaign.

Harrison, Regina

1989 *Signs, Songs, and Memory in the Andes: Translating Quechua Language and Culture.* University of Texas Press, Austin.

Howard-Malverde, Rosaleen

1990 *The Speaking of History: "Willapaakushayki" or Quechua Ways of Telling the Past.* Institute of Latin American Studies, London.

Howe, Emily G., Emily Kaplan, Judith Levinson, and Ellen Pearlstein

1999 Queros: Análisis técnicos de queros pintados de los períodos inca y coloniales. *Iconos* 2:30–38.

Ibarra Grasso, Dick Edgar

1953 *La escritura indígena andina.* Biblioteca Paceña, La Paz.

Jara, Victoria de la

1967 Vers le déchiffrement des écritures anciennes du Pérou. *La nature* 3387:241–247.

1970 La solución del problema de la escritura peruana. *Arqueología y sociedad* 2:27–35.

1972 El decifrimiento de la escritura de los inkas. *Arqueología y sociedad* 7–8:60–77.

1975 *Introducción al estudio de la escritura de los inkas.* Instituto Nacional de Investigación y Desarrollo de la Educación, Lima.

Julien, Catherine

1999 History and Art in Translation: The *Paños* and Other Objects Collected by Francisco de Toledo. *Colonial Latin American Review* 8(1):61–89.

2000 *Reading Inca History.* University of Iowa Press, Iowa City.

Kubler, George

1961 On the Colonial Extinction of the Motifs of Pre-Columbian Motifs. In *Essays in Pre-Columbian Art and Archaeology*, edited by Samuel K. Lothrop, pp. 14–34. Harvard University Press, Cambridge, Mass.

Laurencich Minelli, Laura

1999 *La scrittura dell'antico Perù: Un mondo da scoprire.* CLUEB, Bologna.

Locke, L. L.

1923 *The Ancient Quipu or Peruvian Knot Record.* American Museum of Natural History, New York.

Mannheim, Bruce

1998 A Nation Surrounded. In *Native Traditions in the Postconquest World*, edited by Elizabeth Hill Boone and Tom Cummins, pp. 383–420. Dumbarton Oaks Research Library and Collection, Washington, D.C.

Miccinelli, Clara

2001 Breve clarificación e ilustración de los documentos Miccinelli, ambos dirigidos a los señores académicos. In *Guaman Poma y Blas Valera: Tradición andina e historia colonial*, edited by Francesca Cantù, pp. 99–110. A. Pellicani, Rome.

Miccinelli, Clara, and Carlo Animato

2001 Para integración de un debate abreviado por falta de tiempo. In *Guaman Poma y Blas Valera: Tradición andina e historia colonial*, edited by Francesca Cantù, pp. 431–474. A. Pellicani, Rome.

Molina el Cuzqueño, Cristóbal de

1904 [1582] Testimonio de Cristóbal de Molina, 1582. In *La imprenta en Lima (1584–1824)*, vol. 1, edited by José Toribio Medina, pp. 1194–1195. J. T. Medina, Santiago de Chile.

2008 [1576] *Relación de las fábulas y ritos de los incas.* Edited by Julio Calvo Pérez and Henrique Urbano. Cátedra UNESCO Cultura, Turismo, Desarrollo, Facultad de Ciencias de la Comunicación, Turismo, y Psicología, Universidad de San Martín de Porres, Lima.

Moscovich, Viviana

2006 Yupana, tabla de contar inca. *Revista andina* 43:93–129.

Murúa, Martín de

1590 *Historia del origen y genealogía real de los reyes incas del Perú.* Collection Sean Galvin, Dublin.

1616 *Historia general del Perú.* Ludwig XIII 16. J. Paul Getty Museum, Los Angeles.

Ollantay

1910 *A Drama of the Time of the Incas Sovereigns of Peru about AD 1470, First Reduced to Writing by Dr. Valdez, Cura of Sicuani AD 1770, the Original Manuscript Copied by Dr. Justo Pastor Justiniani, this Justiniani Text Copied at Laris, in April 1853, by Clements R. Markham, a Free Translation into English, by Sir Clements Markham.* Dutton, New York.

Panofsky, Erwin

1939 *Studies in Iconology: Humanistic Themes in the Art of the Renaissance.* Oxford University Press, New York.

Pärssinen, Martti, and Jukka Kiviharju (editors)

2004 *Textos andinos: Corpus de textos khipu incaicos y colonials.* Instituto Iberoamericano de Finlandia and Departamento de Filología Española I, Facultad de Filología, Universidad Complutense de Madrid, Madrid.

Phipps, Elena

2004 Garments and Identity in the Colonial Andes. In *Colonial Andes: Tapestries and Silverwork, 1530–1830*, edited by Elena Phipps, Johanna Hecht, and Cristina Esteras Martín, pp. 16–39. Metropolitan Museum of Art, New York, and Yale University Press, New Haven, Conn.

Phipps, Elena, Johanna Hecht, and Cristina Esteras Martín

2004 *Colonial Andes: Tapestries and Silverwork, 1530–1830.* Metropolitan Museum of Art, New York, and Yale University Press, New Haven, Conn.

Porras, Bartolomé de

1904 [1582] Testimonio de Bartolomé de Porras, 1582. In *La imprenta en Lima (1584–1824)*, vol. 1, edited by José Toribio Medina, pp. 197–199. J. T. Medina, Santiago de Chile.

Porras Barrenchea, Raúl

1963 *Fuentes históricas peruanas.* Instituto Raúl Porras Barrenechea, Lima.

Quilter, Jeffrey, and Gary Urton (editors)

2002 *Narrative Threads: Accounting and Recounting in Andean Khipu.* University of Texas Press, Austin.

Quispe-Agnoli, Rocío

2005 Cuando occidente y los Andes se encuentran: Qellqay, escritura alfabética, tokhapu en el siglo XVI. *Colonial Latin American Review* 14(2):263–298.

2008 Para que la letra lo tenga en los ojos: Tocapu, emblemas, y letreros en los Andes coloniales del siglo XVII. In *Lenguajes visuales de los incas*, edited by Paola González Carvajal and Tamara L. Bray, pp. 133–146. BAR International Series 1848. Archaeopress, Oxford.

Radicati de Primeglio, Carlos

1984 El secreto de la quilca. *Revista de indias* 44(173):11–62. Madrid.

Rostworowski de Diez Canseco, María

1977 *Etnía y sociedad: Costa peruana prehispanica.* Instituto de Estudios Peruanos, Lima.

Rowe, John

1980 Standardization in Inca Tapestry Tunics. In *The Junius B. Bird Pre-Columbian Textile Conference, May 19th and 20th, 1973*, edited by Ann Pollard Rowe, Elizabeth P. Benson, and Anne-Louise Schaffer, pp. 239–264. The Textile Museum and Dumbarton Oaks, Trustees for Harvard University, Washington, D.C.

Salomon, Frank

1998 Collquiri's Dam: The Colonial Re-Voicing of an Appeal to the Archaic. In *Native Traditions in the Postconquest World*, edited by Elizabeth Hill Boone and Tom Cummins, pp. 233–264. Dumbarton Oaks Research Library and Collection, Washington, D.C.

2004 *The Cord Keepers: Khipus and Cultural Life in a Peruvian Village.* Duke University Press, Durham, N.C.

Sánchez Cantón, F. J. (editor)

1956–1959 [1599] *Inventarios reales: Bienes muebles que pertenecieron a Felipe II.* 2 vols. Archivo Documental Español 10–11. Real Academia de la Historia, Madrid.

Sansevero, Raimondo di Sangro

1750 *Lettera apologetica dell'esercitato accademico della Crusca [pseud.] contenente la difesa del libro intitolato Lettere d'una peruana per rispetto alla supposizione de'quipu scritta alla duchessa di S . . . e dalla medesima fatta pubblicare.* Naples.

Santa Cruz Pachacuti Yamqui Salcamaygua, Juan de

1993 [1613?] *Relación de antigüedades deste reyno del Piru.* Edited by Pierre Duviols and César Itier. Institut Français d'Études Andines, Lima, and Centro de Estudios Regionales Andinos "Bartolomé de Las Casas," Cuzco.

Sarmiento de Gamboa, Pedro

1988 [1572] *Historia de los incas.* Miraguano Ediciones, Madrid.

Sherbondy, Jeanette

1982 El regadio, los lagos y los mitos de origen. *Allpanchis* 17(20):3–53.

Silverman, Gail P.

1999 Iconografía textil de Cusco y su relación con los tocapu inca. In *Tejidos milenarios del Perú = Ancient Peruvian Textiles*, edited by José Antonio de Lavalle and Rosario de Lavalle de Cárdenas, pp. 803–833. Integra AFP, Lima.

2007 Los tocapus incas como escritura pictórica: Lectura de un vaso ceremonial inca. In *Sublevando el virreinato: Documentos contestatarios a la historiografía tradicional del Perú colonial*, edited by Laura Laurencich Minelli and Paulina Numhauser, pp. 442–469. Abya-Yala, Quito.

2008 *A Woven Book of Knowledge: Textile Iconography of Cuzco, Peru*. University of Utah Press, Salt Lake City.

Squier, E. G.

1877 *Peru: Incidents of Travel and Exploration in the Land of the Incas*. Macmillan, London.

Stone, Rebecca

2002 *Art of the Andes: From Chavín to Inca*. 2nd ed. Thames and Hudson, New York.

2007 "And all theirs different from his": The Dumbarton Oaks Royal Tunic in Context. In *Variations in the Expression of Inka Power*, edited by Richard L. Burger, Craig Morris, and Ramiro Matos Mendieta, pp. 385–421. Dumbarton Oaks Research Library and Collection, Washington, D.C.

Timberlake, Marie

2008 Tocapu in a Colonial Frame: Andean Space and the Semiotics of Painted Tocapu. In *Lenguajes visuales de los incas*, edited by Paola González Carvajal and Tamara L. Bray, pp. 177–193. BAR International Series 1848. Archaeopress, Oxford.

Tovar, Juan de

1951 *The Tovar Calendar: An Illustrated Mexican Manuscript, ca. 1585*. Edited with commentary by George Kubler and Charles Gibson. Memoirs of the Connecticut Academy of Arts and Sciences 11. Connecticut Academy of Arts and Sciences, New Haven.

Uceda, Santiago, and Ricardo Morales (editors)

2009 *Proyecto arqueológico Huaca de la Luna; Informe técnico 2008*. Universidad Nacional de Trujillo, Facultad de Ciencias Sociales, Trujillo.

Urton, Gary

2001 A Calendrical and Demographic Tomb Text from Northern Peru. *Latin Antiquity* 12(2):127–147.

2003 *Signs of the Inka Khipu: Binary Coding in the Andean Knotted-String Records*. University of Texas Press, Austin.

2007 *The Khipus of Laguna de los Cóndores*. Nuevas Imágenes, Lima.

Urton, Gary, and Carrie Brezine

2007 Information Control in the Palace of Puruchuco: An Accounting Hierarchy in a Khipu Archive from Coastal Peru. In *Variations in the Expression of Inka Power*, edited by Richard L. Burger, Craig Morris, and Ramiro Matos Mendieta, pp. 357–384. Dumbarton Oaks Research Library and Collection, Washington, D.C.

Ziółkowski, Mariusz S., Jarosław Arabas, and Jan Szemiński

2008 La historia en los queros: Apuntes acerca de la relación entre las representaciones figurativas y los signos "tocapus." In *Lenguajes visuales de los incas*, edited by Paola González Carvajal and Tamara L. Bray, pp. 163–176. BAR International Series 1848. Archaeopress, Oxford.

Zuidema, R. Tom

1991 Guaman Poma and the Art of Empire: Toward an Iconography of Inca Royal Dress. In *Transatlantic Encounters: Europeans and Andeans in the Sixteenth Century*, edited by Kenneth J. Andrien and Rolena Adorno, pp. 151–202. University of California Press, Berkeley.